



PRELIMINARY ASSESSMENT REPORT

**US OIL RECOVERY, LLC
PASADENA, HARRIS COUNTY, TEXAS
TXR000051540**



**Prepared in cooperation with the
U.S. Environmental Protection Agency, Region 6**

April 2011

PRELIMINARY ASSESSMENT REPORT

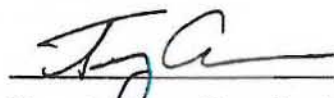
US OIL RECOVERY, LLC
PASADENA, HARRIS COUNTY, TEXAS
TXR000051540

SIGNATURE PAGE



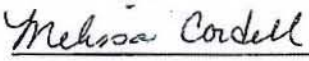
Olga Salinas, Project Manager
Texas Commission on Environmental Quality

4/7/11
Date




Terry Andrews, Team Leader
Texas Commission on Environmental Quality

4/7/11
Date



Melissa Cordell, PA/SI Program Manager
Texas Commission on Environmental Quality

4/7/11
Date



Bret Kendrick, Site Assessment Manager
U.S. Environmental Protection Agency

4/11/11
Date

PRELIMINARY ASSESSMENT REPORT

**US OIL RECOVERY, LLC
PASADENA, HARRIS COUNTY, TEXAS
TXR000051540**

**Prepared in cooperation with the
U.S. Environmental Protection Agency, Region 6**

**Prepared by
Texas Commission on Environmental Quality
Austin, Texas**

April 2011

The preparation of this report was financed through grants from the U.S. Environmental Protection Agency administered through the Texas Commission on Environmental Quality.

NOTE

The State predecessor agencies: Texas Water Quality Board (TWQB), Texas Department of Water Resources (TDWR), Texas Water Commission (TWC), Texas Air Control Board (TACB) and Texas Natural Resources Conservation Commission (TNRCC) referred to throughout this report are now known as the Texas Commission on Environmental Quality (TCEQ). The new agency, TCEQ, became effective September 1, 2002, as mandated under State House Bill No. 2912 of the 77th Regular Legislative Session.

PROJECT CONTACTS

EPA: Bret Kendrick, Site Assessment Manager
U.S. Environmental Protection Agency, Region 6
Superfund Division (6SF-TR)
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733
(214) 665-2240

TCEQ: Melissa Cordell, PA/SI Program Manager
(512) 239-2473

Terry Andrews, Team Leader
(713) 767-3560

Olga Salinas, Project Manager
(713) 767-3721

Texas Commission on Environmental Quality
Remediation Division
P.O. Box 13087, MC 136
Austin, Texas 78711
(512) 239-2200
Fax (512) 239-2450

Table of Contents

1	INTRODUCTION.....	1
2	SITE INFORMATION	2
2.1	SITE LOCATION	2
2.2	SITE DESCRIPTION	3
2.3	OWNERSHIP HISTORY	4
2.4	OPERATIONS AND WASTE CHARACTERISTICS	4
2.4.1	Sources	5
2.5	PREVIOUS INVESTIGATIONS	6
2.6	SITE VISIT	13
3	MIGRATION/EXPOSURE PATHWAYS.....	17
3.1	GROUNDWATER MIGRATION PATHWAY.....	17
3.1.1	Geologic Setting.....	17
3.1.2	Aquifer System.....	18
3.1.3	Drinking Water Receptors.....	19
3.2	SURFACE WATER MIGRATION PATHWAY.....	22
3.2.1	Surface Water Migration Route	22
3.2.2	Surface Water Receptors	23
3.2.3	Environmental Receptors	23
3.3	SOIL EXPOSURE PATHWAY	24
3.3.1	Site Setting and Exposed Sources	24
3.3.2	Soil Pathway Receptors.....	24
3.4	AIR MIGRATION PATHWAY	25
3.4.1	Air Pathway Sources and Setting.....	25
3.4.2	Air Pathway Receptors.....	25
4	SUMMARY	29
5	REFERENCES.....	30

List of Figures and Tables

Figure	Page
2.1: Site Location Map.....	14
2.2: Site Vicinity Map.....	15
2.3: Site Features Map	16
3.1: 4-Mile Target Distance Limit Map	27
3.2: 15-Mile Target Distance Limit Map	28

Table	Page
3.1: Public Water System Wells Within the 4-Mile TDL.....	20

List of Abbreviations and Acronyms

AST	Aboveground Storage Tank
bgs	Below Ground Surface
CERCLIS	Comprehensive Environmental Response Compensation and Liability Information System
CFR	Code of Federal Regulations
EPA	United States Environmental Protection Agency
ERRS	EPA Emergency and Rapid Response Service
FEMA	Federal Emergency Management Agency
HCPHES	Harris County Public Health and Environmental Services
IDW	Investigative Derived Waste
IHW	Industrial and Hazardous Wastes
MonOps	TCEQ Monitoring Operations Division
NOV	Notice of Violation
NPL	National Priorities List
PA	Preliminary Assessment
PCLs	Protective Concentration Levels
PPM	Parts Per Million
PPE	Probable Point of Entry
PPBV	Parts per Billion by Volume
PWS	Public Water Supply
RCRA	Resource Conservation and Recovery Act
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TNRCC	Texas Natural Resource Conservation Commission
TDL	Target Distance Limit
TWDB	Texas Water Development Board
VOC	Volatile Organic Compound

The Texas Commission on Environmental Quality (TCEQ) has been requested by the U.S. Environmental Protection Agency (EPA) Region VI to conduct a Preliminary Assessment (PA) of the US Oil Recovery, LLC (USOR) site located in Pasadena, Harris County, Texas.

The goals for the PA are:

- Determine the potential threat to public health or the environment posed by US Oil Recovery, LLC;
- Determine the potential for a release of hazardous constituents into the environment; and
- Determine the potential for placement of the site on the National Priorities List (NPL) under the Federal Superfund Program (Ref. 1; Ref. 2).

Completion of the PA included reviewing existing site information, determining current site status, identifying possible sources of hazardous substances, identifying potential receptors, and determining off-site migratory pathways. This document includes a discussion of site background information (Section 2), a discussion of migration/exposure pathways and potential receptors (Section 3), a summary (Section 4), and a list of pertinent references (Section 5) (Ref. 3).

2.1 SITE LOCATION

Site Name: US Oil Recovery, LLC

CERCLIS ID#: TXR000051540

Location: Pasadena, Harris County, Texas

Latitude: 29.718409° N

Longitude: 95.221528° W

Legal Description: 12.2334 Acre Tract in Lots 5 and 6, Outlot 35, Townsite of Pasadena, Harris County, Texas (Ref. 4, p. 1).

Physical Description: 400 N. Richey Street, approximately 0.5 miles north of the intersection of Pasadena Freeway (State Hwy 255) and N. Richey Street in Pasadena, Texas.

Congressional District: Texas 29th District

Site Owner/Contact: U.S. Oil Recovery LLC/Klaus Genssler – President (Ref 5, p. 1, Ref. 6, p. 1)
400 N. Richey Street
Pasadena, Texas 77506

2.2 SITE DESCRIPTION

The USOR site consists of a former centralized waste treatment plant and used oil recovery facility that operated at 400 North Richey Street in Pasadena, Harris County, Texas (Ref. 7, p. 1). The facility is located on a 12.2-acre tract of land on the west side of North Richey Street, approximately 0.5 miles north of the intersection of Pasadena Freeway (State Highway 225) and Richey Street (Figure 2.1).

The facility is currently abandoned (Ref. 7, p.1). Access to the facility is controlled by a six-foot chain link fence with locked gates (Ref. 8, p. 158). There are two buildings and a security guard shack located on the property (Figure 2.3). A one-story office building, with an area of approximately 3,000 square feet (ft²), is located near the entrance gate to the facility. The second building is a large warehouse, with an area of approximately 25,000 ft², which is located near the center of the facility. A wastewater treatment area and tank farm are located at the north end of the warehouse. The tank farm contains approximately 24 aboveground storage tanks (ASTs). A large concrete-walled structure, called the aeration basin or bioreactor, is located west of the tank farm. A poly-lined storm water retention pond is located west of the warehouse and south of the aeration basin. There are approximately 230 temporary storage units (roll-off boxes and frac tanks) placed in various locations on the property (Ref. 9, p. 1).

The facility is bordered by the following properties/land use:

- To the north is undeveloped land owned by the City of Houston, the Vince Bayou, and the Crown Hill Cemetery.
- To the east is North Richey Street and commercial/industrial property owned by Pasadena Refinery, which was formerly a large Simpson Paper facility.
- To the south is a Port Terminal Railroad Tract, with an active railway and numerous underground pipelines. South of the Port Terminal Railroad Tract are small industrial/commercial businesses and a residential neighborhood.
- To the west are two properties. The northern property is undeveloped land owned by Astra Real Property and the southern property has an impoundment and is owned by the City of Pasadena. West of these properties is AES Deepwater Inc., a petroleum coke-fired power generation facility. (Ref. 9, p. 1)

2.3 OWNERSHIP HISTORY

The first known owner of the facility was the Stauffer Chemical Company, which sold the property to Chipman Chemical Company in 1947 (Ref. 10, p. 2). Chipman Chemical Company then merged with Rhodia, Inc. in 1967 (Ref. 10, p. 2). Rhodia reportedly used the property to manufacture fertilizer and sulfuric acid (Ref. 11, p. 3).

On December 11, 1973, Rhodia, Inc. sold the property to North American Hide Exporters, Inc. (NAH) who began to tan leather at the facility using arsenic (Ref. 10, p. 2). In 1984, NAH changed its name to Covesud, S.A (Covesud). On February 13, 1991, Covesud sold the property to Client Growth Specialist, Inc. (Ref. 11, p. 3). On October 20, 1995, Client Growth Specialist, Inc. sold the property back to Covesud (Ref. 11, p. 3).

On December 28, 2001, Covesud transferred the property to an investing commercial real estate provider, Mountain View Capital, L.L.C. (Ref. 11, p. 3). On March 13, 2002, Mountain View Capital L.L.C sold the property to Hide Exporters of Texas, Inc (Ref. 11, p. 3). On June 1, 2003, USOR began operating at the facility and then purchased the property on December 13, 2004 (Ref. 11, p. 5).

2.4 OPERATIONS AND WASTE CHARACTERISTICS

From October 2003 to July 2010, USOR operated as a permitted centralized waste treatment and used oil recovery facility (Ref. 7, p. 1). USOR was authorized to operate as a hazardous waste and non-hazardous solid wastewater treatment facility, and as a non-hazardous industrial solid waste storage facility (Ref. 12, p. 9).

According to USOR, wastewater treatment was conducted as follows:

- Wastewater was initially separated into several different concrete pits;
- Wastewater with greater than 5% solids was sent to concrete pits to be de-watered and solidified using lime kiln dust, cement kiln dust, sawdust, and/or filter press operation;

- Wastewater with less than 5% solids and decant from the other wastewater pits was piped into treatment tanks for separation of oily liquids and suspended solids;
- Wastewater was further treated by introducing water treatment chemicals to break oil-water emulsions and by adjusting the pH to precipitate heavy metals (Ref. 13, p. 2).

After treatment, the effluent was either sent to a wastewater disposal company for disposal or, after January 2009, the effluent was piped approximately 0.1 mile southeast to MCC Recycling, LLP (MCC) for further treatment and eventual off-site discharge. MCC is owned by US Oil Recovery No 2 LLP and the President of MCC is Klaus Genssler (Ref. 14, p. 1, and Ref. 15, p. 2) and allegedly treated the wastewater to remove oil, solids, and water soluble compounds. After the treatment process at MCC, the treated wastewater was discharged to the City of Pasadena Publicly Owned Treatment Works (POTW) via the sewer collection system (Ref. 12, p. 10). Recovered oily liquids were stored in tanks and recycled on-site. Solidified/dried solids were shipped offsite for disposal to a licensed landfill (Ref. 13, p. 2).

2.4.1 Sources

Potential sources identified at the site include waste-containing drums, totes, roll-off boxes, frac tanks, ASTs, the storm water retention pond, and the aeration basin. Details regarding these potential sources are as follows:

- Approximately 800 drums (55-gallons each) and 212 poly totes (300- to 400-gallons each) of waste are stored in the warehouse. Field hazard characterization analysis was conducted in July 2010 to properly ascertain the hazard characteristics of the containers for appropriate storage and compatibility. The drums and totes were grouped into the following categories: Hazardous-Flammable/Combustible; Non-Hazardous Flammable/Combustible; Non-Hazardous/Universal Waste; Hazardous-Corrosive/Acidic; Hazardous-Corrosive/Basic; Potential Oxidizers; and Hydrogen Sulfide (Ref. 7, p. 14).

- Approximately 225 roll-off boxes (20- to 25-cubic yards each) that contain waste are located throughout the site. Most of the roll-off boxes are labeled “Hazardous Waste Oct 09” or “Hazardous Waste Dec 2009” (Ref. 7, p. 14).
- Two full frac tanks containing oily liquids are parked in the northeast corner of the site (Ref. 8, p. 9).
- A storm water retention pond containing water with measured concentrations of acetone (0.0082 mg/L) is located on the western side of the site (Ref. 16, p. 3).
- A 600,000-gallon aeration basin, also called the bioreactor, containing approximately 150,000 gallons of hazardous oily waste and wastewater, is located in the northwest corner of the property. In 2009, the west wall of the aeration basin broke and wastewater from the aeration basin flowed onto the ground and then off-site to the north of the facility (Ref. 17, p. 3). Although steel rods have been installed to help maintain the structure, there are numerous cracks in the concrete walls of the aeration basin and these appear to be seeping and discharging liquid from the aeration basin into a small secondary containment area that surrounds the aeration basin (Ref. 18, pp. 86-87). The secondary containment area is draining liquid onto the ground to the north of the basin (Ref. 8, p. 47 and Ref. 18, p. 96).
- A tank farm consisting of twenty 17,000-gallon and four 22,000-gallon ASTs, many containing significant volumes of oily waste and sludge and several visibly leaking via weep holes into the secondary containment area, is located in the north end of the facility (Ref. 18, p. 83).

2.5 PREVIOUS INVESTIGATIONS

The first known environmental investigation of the site is described in a Phase 2A Environmental Site Assessment, dated October 30, 1991, that was prepared for Covesud by Espey, Huston & Associates, Inc (EH&A) (Ref. 19, p. 1). The report indicated that three soil borings had recently been drilled next to a below-grade concrete vault that was

located west of the warehouse (Ref. 11, p. 4). Soil and groundwater samples had been collected from the three borings and analysis had detected arsenic at levels exceeding 6,000 parts per million (ppm) in the soil and 5.77 ppm in the groundwater (Ref. 11, p. 4). Several pesticides were also identified in the soil and groundwater samples, including: 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, dieldrin, the Lindane isomers alpha-BHC, beta-BHC and delta-BHC, methoxychlor, and endrin aldehyde (Endrin) (Ref. 19, p. 4). The groundwater and soil samples from one boring contained various organic constituents, which appeared to be solvent and resin-related compounds (Ref. 11, p. 4).

On November 14, 1991, EH&A completed a Phase 2B Environmental Site Assessment Report for Covesud that documented further investigation of the site. Analytical results from additional soil borings located near the concrete vault located west of the warehouse detected elevated levels of arsenic, copper, and pesticides in soil and groundwater samples (Ref. 20, p. 2).

On October 7, 1992, the Texas Water Commission (TWC) first became aware of soil and groundwater contamination at the site and issued a Notice of Violation (NOV) for unauthorized discharge (Ref. 21, pp. 1-4).

Between June 24 through July 17, 2001, soil and groundwater samples were collected throughout the site by EFEH & Associates and analyzed for arsenic in soil and groundwater (Ref. 22, p. 1). Arsenic levels in the soil samples were found to be below 200 mg/kg except for a soil sample taken from the center of the pit, which had an arsenic level of 219 mg/kg (Ref. 22, p. 6). Arsenic levels in the groundwater samples were found to be below the TCEQ regulatory level of 0.05 mg/L (Ref. 22, p. 6).

On September 22, 2003, USOR submitted a waste removal report to the TCEQ that documented removal of arsenic contaminated soil from a buried waste pit at the facility (Ref. 23, p. 1). On October 17, 2003, the TCEQ determined that the Texas Risk Reduction Program (TRRP) Remedy Standard A - Commercial/Industrial Protective Concentration Levels (PCLs) had been achieved and no post-response action care was needed (Ref. 24, p. 1).

On October 7, 2005, the TCEQ Region 12 Waste Program conducted a Sampling Investigation at the site. A TCEQ investigator collected three samples of surface soil from an area of distressed vegetation located near a manhole on the southeast side of the facility and analyzed the samples for benzene, toluene, ethylbenzene, xylene, total petroleum hydrocarbons, and inorganics. The soil sample results revealed concentrations of arsenic, lead, and mercury that exceeded TRRP Tier 1 PCLs for soil at commercial/industrial sites (Ref. 25, pp. 2-3)

On February 23, 2006, the TCEQ Region 12 Waste Program collected soil samples from three areas on the property and compared the results to TCEQ TRRP Tier 1 commercial/industrial PCLs. Sample analysis of a soil sample that had been collected near the northwest corner of the tank farm, where an oily spill had occurred, detected arsenic, barium, lead, mercury, and the semi-volatile organic compound (SVOC) benzo(a)pyrene above PCLs (Ref. 26, p. 1, and Ref. 27, p. 2-3). Sample analysis of a soil sample that had been collected at the north end of the former arsenic burial pit, located to the west of the warehouse building, detected arsenic, mercury, and the pesticide toxaphene above PCLs (Ref. 27, p. 3). Sample analysis of a soil sample that had been collected in a drainage area west of the warehouse building detected 17 constituents above PCLs, including metals, volatile organic compounds (VOCs), SVOCs, and pesticides (Ref. 27, p. 3).

On June 1, 2006, a TCEQ investigator found fractures in the tank farm secondary containment concrete walls that showed seepage of oily liquid. The TCEQ investigator also observed oily waste migrating outside of the secondary containment to the concrete covered truck unloading/staging area, and soil contamination from a diesel spill that had occurred between the concrete and fence on the east side of the facility. (Ref. 28, pp. 1-2)

On December 14, 2007, personnel from the TCEQ Monitoring Operations Division (MonOps) detected a real-time maximum concentration of 160 parts per billion by volume (ppbv) of benzene in air at a location northwest of the USOR facility. Additional air samples were collected and laboratory analysis of these samples indicated

concentrations of 300 ppbv benzene, 980 ppbv toluene, and 580 ppbv xylene in air downwind of the facility (Ref. 29, p. 2).

On December 17, 2007, the TCEQ Region 12 Waste Program conducted a Sampling Investigation at USOR. During the investigation, the TCEQ investigators found that an unauthorized discharge of wastewater onto the ground was occurring from cracks in the west wall of the aeration basin. The TCEQ investigators took several soil samples. Two soil samples were collected from approximately three feet from the base of the basin. One soil sample was collected approximately 58 feet away at the north fence line, and two other samples were collected on the adjacent down-gradient property to the north. Another soil sample was taken approximately 88 feet north of USOR property. The two soil samples collected on the adjacent down-gradient property to the north found contamination by petroleum hydrocarbons at levels requiring remediation. All six soil samples encountered concentrations of arsenic, lead, and/or mercury exceeding TCEQ TRRP Tier 1 residential PCLs (Ref. 17, p. 3).

On March 14, 2009, part of the wall of the aeration basin broke and several hundred gallons of waste from the aeration basin spilled to the ground. The spilled material ran north on the property about 150 feet and then outside of the property another 200 feet further north of the site. (Ref. 30, p. 1)

On October 12, 2009, USOR submitted a letter to the TCEQ reporting completion of remediation activities following the industrial water spill on March 14, 2009 from the aeration basin. According to USOR, approximately 400,000 gallons of material had been removed from the aeration basin after the spill. The material consisted of a water/solids mixture that was stored at the site in roll-off boxes (Ref. 30, p. 2). Also according to USOR, approximately three inches of contaminated soil had been excavated and disposed off-site (Ref. 30, p. 2). Confirmation soil samples had been collected and analyzed for metals, VOCs, and SVOCs to confirm that the site remediation objectives had been met. Analytical results of these soil samples indicated arsenic levels below the TCEQ TRRP Tier 1 PCL for commercial/industrial soil (Ref. 30, p. 3). Soil samples were also taken on

affected areas outside of the USOR property and analysis showed elevated levels of arsenic (Ref. 30, pp. 2-3).

During November and December 2009, the EPA Region 6 conducted an inspection of the facility and found 210 roll-off boxes at the site with no secondary containment. They also found that some of the roll-off boxes were leaking onto the ground. The EPA collected samples of the waste contained in several of the roll-off boxes and analyzed these samples using the Toxicity Characteristics Leaching Procedure (TCLP) analytical test method. The TCLP analytical results (4.01 mg/L benzene, 1.04 mg/L dichloroethane, and 1.32 mg/L trichloroethylene) indicated that the waste was characteristic hazardous waste (Ref. 12, p. 11).

On December 2, 2009, EPA inspectors observed an oily sheen discharge into Vince Bayou from the site (Ref. 12, p. 11). During the inspection, EPA found approximately 200 drums and totes in the USOR warehouse. Approximately 20 percent of the drums had hazardous waste labels. EPA took samples of the drums labeled hazardous waste, and the results confirmed that the drums contain hazardous waste. Samples were also taken from unlabeled drums and results showed that the contents contained in the drums were hazardous waste. USOR did not have authorization pursuant to the TCEQ Waste Permit to store hazardous waste in the warehouse or any other location on the USOR facility. EPA inspectors observed some drums in the warehouse were leaking and badly deteriorating. EPA inspectors observed a shipment of waste dumped directly from a truck to the floor of the filter press room. EPA sampled the waste and found the waste to be a hazardous waste with a flash point less than 140°F. Hazardous waste was observed leaking from a truck and flowing into the storm water retention system. Based on records and recent sampling results, EPA found USOR discharged hazardous waste in its effluent to the Pasadena POTW from July 1, 2009 to December 26, 2009. Samples results revealed effluent contained hazardous wastes exceeding the regulatory limit for benzene and mercury. (Ref. 12, pp. 11-12)

On December 2, 2009, the HCPHES conducted an inspection at the site and observed a six foot tall pile of dirt located behind the bioreactors. The pile of dirt was generated as a

result of the sludge transfer operation from the bioreactors to roll-off containers and appeared to be contaminated by the hazardous sludge. No protection barrier was observed under or around the pile of dirt that would prevent contaminants from migrating from it and potentially draining off-site into Vince Bayou. (Ref. 30, p. 3)

On July 1, 2010, during a large rainfall event that was part of the Hurricane Alex storm, the HCPHES and TCEQ reported to the National Spill Response Center that a release from USOR was imminent. The EPA initiated an Emergency Response (ER) and Removal Action on July 2, 2010 at the USOR site and found the facility abandoned (Ref. 7, pp. 1-2). The EPA and TCEQ found that releases of hazardous substances were occurring at the site. Oil and emulsions were discharging down the front driveway and into Vince Bayou. The storm water retention pond, located on the west side of the facility, was overflowing and discharging liquid into the wetland area located north of the site. Liquid was overflowing from numerous roll-off boxes, some of which were labeled as containing hazardous waste, into the parking lot area, and then off-site and into Vince Bayou. Secondary containment areas located in the tank farm, treatment area, and truck bays were overflowing oily liquids into the parking lot area, which was then discharging down the front driveway and into Vince Bayou (Ref. 8, pp. 5-7).

The ER Team also found that most of the drums located in the warehouse were not in transportable condition, and contents in the drums were not labeled correctly. Many drums were stored improperly (i.e. corrosives were stored in metal containers, and containers of acids and bases were stored next to each other). Contents in totes located in the warehouse were not consistent with the tote labels and contained flammables and corrosives (Ref. 7, pp. 13-14). Numerous roll-off boxes were not properly secured and open to weather. The storm water retention pond located on the western side of the site was sampled and found to contain 0.0082 mg/L acetone (Ref. 16, p. 3). The aeration basin located on the northwest corner of the property contained oily waste, and its walls were deteriorating (Ref. 7, p. 13).

As part of the ER action, all of the 225 roll-off boxes were assessed and properly covered and 797 drums and 212 totes were assessed, inventoried, and segregated. The drums and

totes were staged in a safe manner in secondary containment areas located in the warehouse. Approximately 392,000 gallons of non-hazardous liquid that had been pumped from various containers/impoundments to prevent discharges were transported off-site for disposal. On August 2, 2010, the EPA completed its Emergency Response and Removal Action, and the site was deemed to be stabilized. (Ref. 7, pp. 13-14)

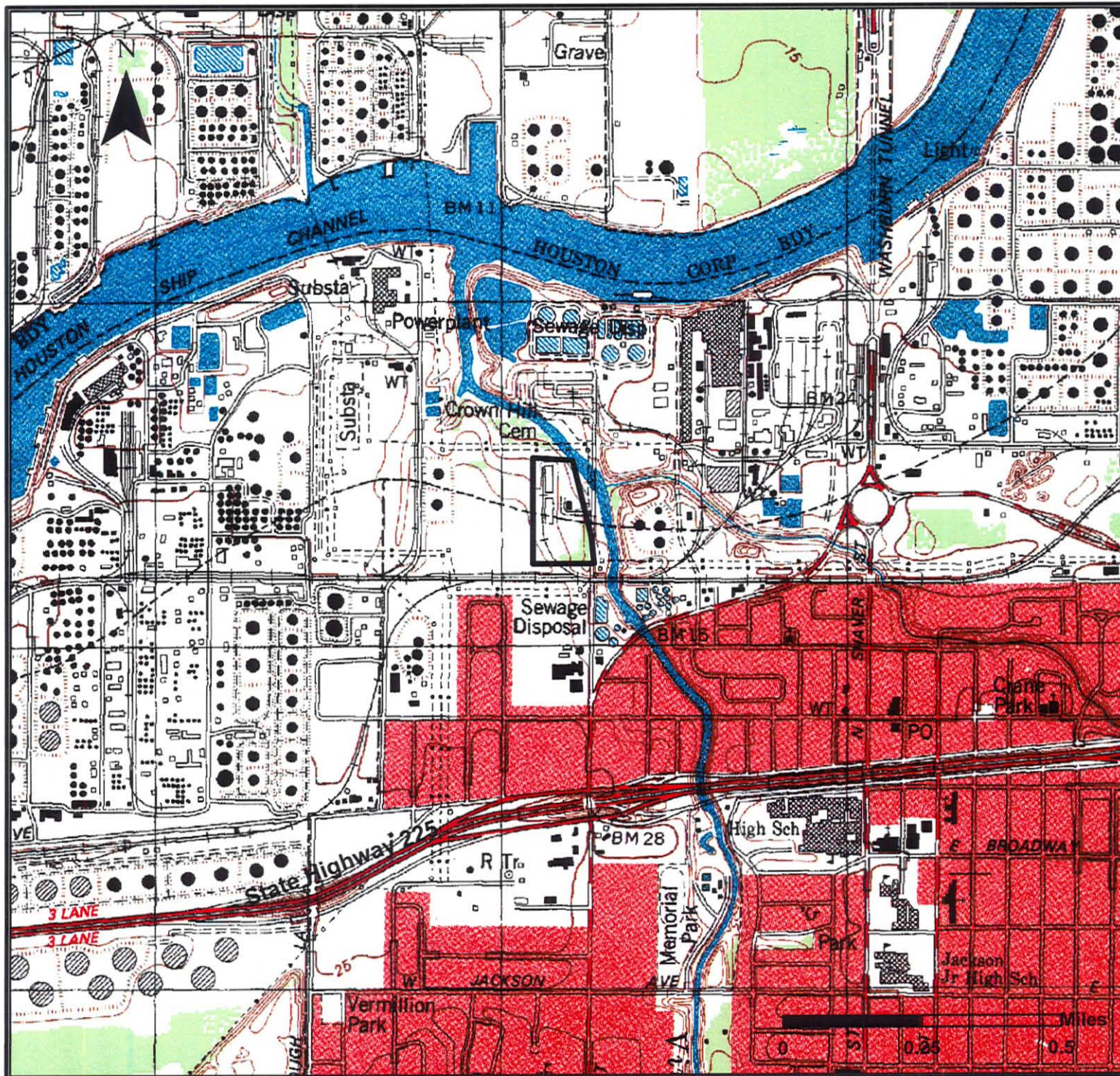
On November 4, 2010, HCPHES reported to the National Response Center that an oily discharge was occurring from USOR due to heavy rain. Investigators from the TCEQ visited the site on the afternoon of November 4, 2010 and saw that an oily liquid had drained from the parking lot area, down the front driveway, and into the bar ditch located along Richey Street. After gaining access to the site on November 5, 2010, the TCEQ personnel observed oily liquid in the parking lot, several of the truck bays, and the secondary containment area for the tank farm. Because any additional precipitation would cause additional oily releases, the TCEQ requested EPA's assistance on November 8, 2010. Personnel with the EPA Emergency and Rapid Response Service (ERRS) arrived on-site on November 9, 2010. After making a complete inspection of the site, ERRS personnel found damaged containers in the warehouse and confirmed the overflow and off-site migration of hazardous substances from the USOR facility containments into Vince Bayou (Ref. 7, p. 17; Ref. 8, pp. 45, 46, 160; Ref. 18, pp. 88-91).

Personnel from ERRS recovered liquids from the north and south secondary containment areas (tank farms), sumps, bays, and parking lot. As a result of several tanks leaking in the north tank farm, oily liquids and sludge from the tanks were drained into the containment area. Oily liquids and sludge from the tanks contained high levels of hydrogen sulfide and were neutralized for disposal as non-hazardous waste. A tank used to store acid was removed from the secondary containment area since the tank was leaking and had damaged the containment area. Concrete was poured in the acid containment area to repair the damage. Approximately 410,000 gallons of non-hazardous oily liquid waste were transported off-site by the ERRS team for fuels blending/recycling at the Intergulf disposal facility in Pasadena, Texas. Approximately 11,751 gallons of hazardous sludge and five drums of hazardous sludge washout containing benzene were

disposed at US Ecology Texas Inc. in Robstown, Texas. Nine vacuum boxes containing 89.36 tons of non-hazardous sludge waste were disposed at Waste Management Disposal in Conroe. One roll-off box containing 10 cubic yards of personal protective equipment, solids, and investigative derived waste was disposed at U.S. Ecology Texas Inc. in Robstown, Texas (Ref. 7, p. 22). EPA personnel completed emergency response activities and mobilized from the site on December 20, 2010 (Ref. 18, p. 42).

2.6 SITE VISIT

The TCEQ Superfund staff (Terry Andrews and Olga Salinas) made numerous site visits to USOR during the EPA Emergency Response actions that were conducted from July 2010 through January 2011. Photographs and field notes were taken during the site visits. Currently, the site is abandoned and secured. (Ref. 8, pp. 1-179 and Ref. 18, pp. 1-96)



**FIGURE: 2.1: SITE
LOCATION MAP**

**US OIL RECOVERY, LLC
400 NORTH RICHEY STREET,
PASADENA, HARRIS COUNTY,
TEXAS**

TXR000051540



**US OIL RECOVERY, LLC
PROPERTY BOUNDARY**



The base data used for this map is a compilation of Digital Raster Graphics (DRGs), which is a digital version of USGS 7.5 Minute topographic maps (UTM NAD 83 Zone 15, Houston West). This map was generated by the Remediation Division of the Texas Commission on Environmental Quality. It is intended for illustrative or informational purposes only, and is not suitable for legal, engineering, or survey purposes. This map does not represent an on-the-ground survey conducted by or under the supervision of a registered professional land surveyor. In cases where property boundaries are shown, it only represents their approximate relative location. No claims are made to the accuracy or completeness of the data or to its suitability for a particular use. For more information concerning this map, contact the Remediation Division at 800-633-9363. Map created on March 11, 2011 by O. Salinas.



FIGURE 2.2: SITE VICINITY MAP

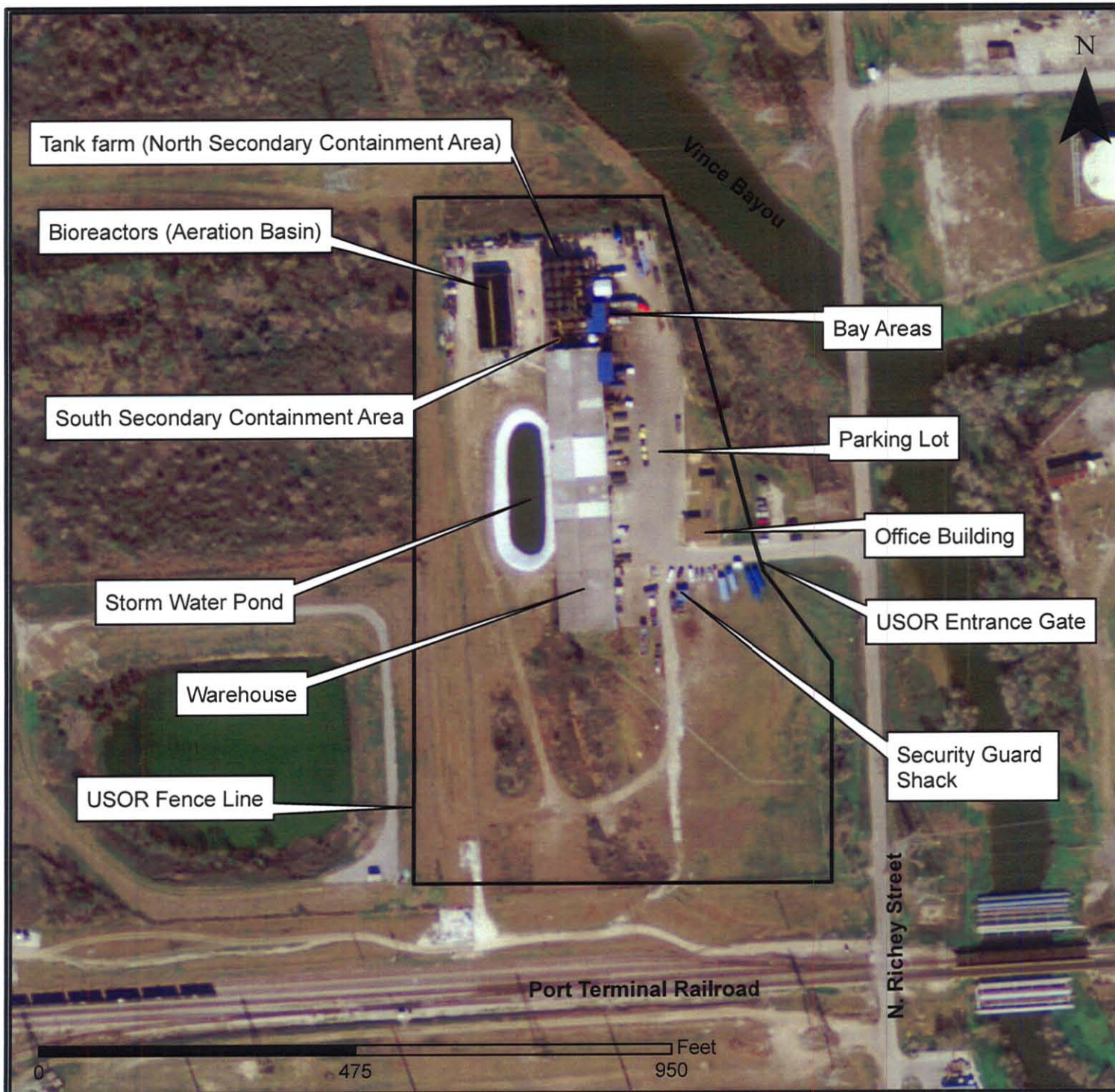
**US OIL RECOVERY, LLC
400 NORTH RICHEY STREET,
PASADENA, HARRIS COUNTY,
TEXAS**

TXR000051540

- Area Designated as Estuarine Wetland
- ▲ Probable Point of Entry (PPE) Location



The base data used for this map is the 1983 National Agriculture Imagery Program (NAIP). Aerial Imagery of Harris County Projection: NAD1983, UTM Zone 15. This map was generated by the Remediation Division of the Texas Commission on Environmental Quality. It is intended for illustrative or informational purposes only, and is not suitable for legal, engineering, or survey purposes. This map does not represent an on-the-ground survey conducted by or under the supervision of a registered professional land surveyor. In cases where property boundaries are shown, it only represents their approximate relative location. No claims are made to the accuracy or completeness of the data or to its suitability for a particular use. For more information concerning this map, contact the Remediation Division at 800-633-9363. Map created on March 14, 2011 by O.Salinas.



**FIGURE 2.3: SITE FEATURES
MAP**

**US OIL RECOVERY, LLC
400 NORTH RICHEY STREET,
PASADENA, HARRIS COUNTY,
TEXAS**

TXR000051540



The base data used for this map is the 1983 National Agriculture Imagery Program (NAIP). Aerial Imagery of Harris County Projection: NAD1983, UTM Zone 15. This map was generated by the Remediation Division of the Texas Commission on Environmental Quality. It is intended for illustrative or informational purposes only, and is not suitable for legal, engineering, or survey purposes. This map does not represent an on-the-ground survey conducted by or under the supervision of a registered professional land surveyor. In cases where property boundaries are shown, it only represents their approximate relative location. No claims are made to the accuracy or completeness of the data or to its suitability for a particular use. For more information concerning this map, contact the Remediation Division at 800-633-9363. Map created on March 14, 2011 by O. Salinas.

3

MIGRATION/EXPOSURE PATHWAYS

The following sections describe migration/exposure pathways and potential targets within the site's range of influence.

3.1 GROUNDWATER MIGRATION PATHWAY

The target distance limit (TDL) for the groundwater migration pathway is a 4-mile radius that extends from the sources at the site.

3.1.1 Geologic Setting

The geologic formations found beneath the site, beginning at the surface and progressing downward to the top of the aquifer of concern and any interconnected aquifer(s), are:

Series	Formation
Holocene	Alluvium (if present; occurs locally)
Pleistocene	Beaumont Clay, Montgomery Formation, Bentley Formation, Willis Sand (Chicot aquifer)
Pliocene	Goliad Sand (Evangeline aquifer)
Miocene	Fleming Formation (Burkeville Confining System) and Oakville Sandstone (Jasper aquifer)

(Ref. 31, pp. 37-38)

These formations consist of a massive thickness of sediments that form a homocline sloping gently towards the Gulf of Mexico. These sediments were mainly deposited in the coastal plains of the Gulf of Mexico Basin under fluvial-deltaic to shallow marine environments during the Miocene and Pleistocene periods. Repeated sea-level changes and natural basin subsidence produced discontinuous beds of sand, silt, clay, and gravel. (Ref. 31, p. 45) Borings drilled on the site encountered soil in the uppermost 4 feet, then gray sand from 4 to 8 feet below ground surface (bgs), then red clay from 8 to 12 bgs, then brown sand from 12 to 25 feet bgs. Depth to water in monitoring wells installed on the site ranged from 7.25 to 13.67 feet bgs (Ref. 32, pp. 31, 48, 49).

The soil at the site is mostly comprised of the Lake Charles - Urban Land complex, which consists primarily of clay and has a total depth of 74 inches (Ref. 33, p.1; Ref. 34, p. 1).

The average annual precipitation in the city of Pasadena, Texas is 53.96 inches (Ref. 35, p. 1).

3.1.2 Aquifer System

The site overlies the Gulf Coast aquifer, which consists of five hydrostratigraphic units, from youngest to oldest: the Chicot aquifer, the Evangeline aquifer, the Burkeville confining system, the Jasper aquifer, and the Catahoula confining system.

The Chicot aquifer includes the Beaumont Clay and extends through the Willis Sand. The Chicot aquifer is recognized for an abundance of water in Southeast Texas due to the high percentage of sand in the aquifer formations. The depth of the base of the Chicot aquifer is approximately 700 feet below the ground surface in the site area. Some of the Public Water Supply (PWS) wells in the site area are reportedly screened in this aquifer. (Ref. 31, pp. 38-45)

The Evangeline aquifer is approximately 2,100 feet thick and underlies the Chicot aquifer, encompassing the entire thickness of the Tertiary-aged Goliad Formation sands (Ref. 31, pp. 38-45). The Chicot and Evangeline aquifers are geologically similar and the basis for separating them is primarily because they differ in hydraulic conductivity (Ref. 36, p. 10). The Evangeline aquifer is considered to be one of the most prolific aquifers of the Coastal Plain, yielding large quantities of good quality ground water. The top of the Evangeline aquifer is approximately 700 feet bgs in the site area. The deepest PWS wells in the vicinity of the site are screened in this aquifer. (Ref. 31, pp. 38-45)

The Evangeline aquifer and the underlying Jasper aquifer are separated by the Burkeville Confining System, which consists of silt and clay strata and ranges from 300 to 400 feet in thickness. The Jasper aquifer is the deepest confined water bearing unit in the Gulf

Coast aquifer system in Texas and consists of the Fleming Formation and the Oakville Sandstone. The base of the Jasper aquifer is approximately 4,200 feet bgs in the site area. (Ref. 31, pp. 38-42)

The Catahoula confining system underlies the Jasper aquifer and has an average thickness of 200 to 600 feet. The Catahoula Formation is composed of non-marine sands, clays, and volcano-clastic deposits interbedded with fluvial sediments. (Ref. 31, pp. 38-45)

During most of the 20th century, the high rate of ground water removal from the Chicot and Evangeline aquifers in Harris County and surrounding counties caused water levels to dramatically fall in these aquifers. This problem caused land-surface subsidence problems and led to the use of surface water as the primary source of potable water in the area. In the mid-1970s, the cities of Houston and Pasadena converted most of their water sources to surface water from the San Jacinto and Trinity rivers (Ref. 31, pp. 140-142). Currently, the groundwater wells operated by the City of Pasadena are only used as an emergency supply and only produce approximately 1% of the total water supply (Ref. 37, p. 1).

3.1.3 Drinking Water Receptors

According to the Harris-Galveston Subsidence District, five domestic groundwater wells are located within the TDL. These wells range in depth from 120 to 660 feet bgs and withdraw groundwater from the Chicot aquifer (Ref. 38, pp. 1-10).

Twenty-eight active PWS wells are located within the TDL (Figure 3.1). These wells range in depth from 325 to 1,967 feet bgs and withdraw groundwater from the Chicot and Evangeline aquifers. The nearest active PWS well is located approximately 1,573 feet (0.3 miles) northwest of the site and is owned by the Houston Refining PWS (Figure 3.1). A list of the PWS wells located within the TDL and the populations that they serve are found in Table 3.1. (Ref. 39, p. 1-72)

The extent of ground water-to-surface water interaction at the site cannot be determined using available information.

Table 3.1 Public Water System Wells within the 4-Mile TDL

Distance (miles)	PWS #	PWS Name	Well ID	Aquifer	Depth (ft)	Population Served*
0-1	1011570	HOUSTON REFINING	G1011570D	Evangeline	1,844	1,000
1-2	1010009	CITY OF GALENA PARK	G1010009A	Evangeline	680	10,592
	1010009	CITY OF GALENA PARK	G1010009C	Evangeline	1,201	10,592
	1011570	HOUSTON REFINING	G1011570B	Evangeline	1,192	1,000
	1011570	HOUSTON REFINING	G1011570C	Evangeline	1,226	1,000
2 – 3	1010009	CITY OF GALENA PARK	G1010009D	Evangeline	975	10,592
	1010293	CITY OF PASADENA	G1010293A	Evangeline	1,264	144,174
	1010293	CITY OF PASADENA	G1010293F	Chicot	1,565	144,174
	1010312	CHEVRON PHILLIPS PASADENA PLASTICS	G1010312A	Evangeline	1,967	426
	1010312	CHEVRON PHILLIPS PASADENA PLASTICS	G1010312B	Evangeline	1,220	426
	1010936	AGRIFOS FERTILIZER PASADENA	G1010936A	Evangeline	1,230	198
	1013224	GALENA PARK ISD	G1013224A	Chicot	325	60

Table 3.1 Public Water System Wells within the 4-Mile TDL (Continued)

Distance (mile)	PWS ID#	PWS Name	Source ID	Aquifer	Depth (ft)	Population Served*
3-4	1010015	CITY OF JACINTO CITY	G1010015A	Chicot	894	9,603
	1010015	CITY OF JACINTO CITY	G1010015B	Chicot	1,010	9,603
	1010293	CITY OF PASADENA	G1010293B	Evangeline	1,269	144,174
	1010293	CITY OF PASADENA	G1010293E	Chicot	526	144,174
	1010294	CITY OF SOUTH HOUSTON	G1010294A	Evangeline	1,203	13,116
	1010294	CITY OF SOUTH HOUSTON	G1010294B	Evangeline	1,205	13,116
	1010294	CITY OF SOUTH HOUSTON	G1010294D	Evangeline	1,305	13,116
	1010294	CITY OF SOUTH HOUSTON	G1010294E	Evangeline	1,413	13,116
	1011172	ALBEMARLE HOUSTON PLANT	G1011172A	Chicot	476	775
	1011172	ALBEMARLE HOUSTON PLANT	G1011172B	Evangeline	1,740	775
	1011172	ALBEMARLE HOUSTON PLANT	G1011172D	Evangeline	1,252	755
	1011974	BASF CORPORATION PASADENA PLANT	G1011974A	Chicot	490	110
	1010336	PORT OF HOUSTON BULK MATERIALS PLANT	G1010336A	Evangeline	925	75
	1011108	ARKEMA	G1011108B	Evangeline	1,141	53
	1010074	GB BIOSCIENCES CORPORATION	G1010074C	Evangeline	1290	300
	1011573	GEORGIA GULF CHEMICALS & VINYL PA	G1011573B	Chicot	490	65

* - Note that the listed population served is the total population served by the PWS and not the individual well. Also, note that surface water is also used as a source of water for the cities of Pasadena, Jacinto City, and Galena Park.

(Ref. 39, p. 1-72)

3.2 SURFACE WATER MIGRATION PATHWAY

The surface water migration pathway begins at the probable point of entry (PPE) of surface water runoff from the site to a surface water body and extends downstream for 15 miles.

3.2.1 Surface Water Migration Route

The topography of the site is generally flat with a slight slope across most of the site to the north and east towards Vince Bayou, which is located 50 feet northeast of the site. The site is located approximately 400 feet downstream of the confluence of Big Vince Bayou and Little Vince Bayou. Vince Bayou flows to the north and enters the Houston Ship Channel at a point approximately 0.4 mile to the north of the site. Vince Bayou and the Houston Ship Channel are both tidally-influenced water bodies. Storm water from the majority of the site drains to the northeast, north, and northwest into Vince Bayou. Storm water that falls in the southern part of the site flows south and east to a bar ditch located along the west side of Richey Street. This bar ditch conveys storm water to Vince Bayou at the bridge where Richey Street crosses Vince Bayou (Figure 2.1).

The site is located within a high risk area within the base floodplain (the 100 year flood zone) and vulnerable to a moderate flood hazard. (Ref. 40, p. 1; Ref. 41, p. 1)

Additional investigation is on-going in relation to possible dioxin detections in the Houston Ship Channel.

As shown in Figure 2.2, three PPEs are identified at the site:

- PPE #1 – the point along Vince Bayou located at the bridge where the bar ditch along the west side of Richey Street enters Vince Bayou.
- PPE #2 – the point along Vince Bayou located nearest to the northeast corner of the site.
- PPE #3 – the point where run-off from the northwest corner of the site enters the wetlands approximately 200 feet north of the site.

From PPE #3, the most downstream PPE, Vince Bayou flows north and enters the Houston Ship Channel approximately 0.3 miles downstream. Flow in the Houston Ship Channel is to the east towards Galveston Bay and the Gulf of Mexico. Approximately 10.5 miles downstream of PPE #3, the Houston Ship Channel merges with the San Jacinto River. The 15-mile point downstream of PPE #3 is in the Houston Ship Channel/San Jacinto River near the vicinity of Alexander Island (Figure 3.2).

3.2.2 Drinking Water Receptors

There are no PWS surface water intakes located within the 15-mile target distance limit. (Ref. 42, p. 62)

3.2.3 Human Food Chain Receptors

The TCEQ has not designated any uses for the Vince Bayou and the Houston Ship Channel above the San Jacinto River. However, the TCEQ has designated the Houston Ship Channel/San Jacinto River for “Non-Contact Recreation” and aquatic life habitat uses (Ref. 42, p. 62).

TCEQ personnel have observed several people fishing in Vince Bayou at locations downstream of PPE #1 (Ref. 8, pp. 4, and 160). Total human consumption of fish caught in Vince Bayou is unknown.

In 2001, due to the presence of organochlorine pesticides and polychlorinated biphenyls at concentrations in samples of fish that pose a threat to human health, the Texas Department of Health issued a consumption advisory for the Houston Ship Channel and all its contiguous waters for all species of fish. The advisory recommended consuming no more than one meal, not to exceed eight ounces, each month for these species (Ref. 43, p. 1).

3.2.3 Environmental Receptors

Environmental receptors include wetlands and threatened or endangered species.

Estuarine emergent and unconsolidated bottom wetlands occur to the north and east of the site along Vince Bayou (Figure 2.2, Ref. 44, pp. 1-3).

Federally threatened or endangered species potentially located in Harris County include the Houston Toad, Mountain Plover, Red-Cockaded Woodpecker, Whooping Crane, Smalltooth Sawfish, Louisiana Black Bear, Red Wolf, Green Sea Turtle, Kemp's Ridley Sea Turtle, Leatherback Sea Turtle, Loggerhead Sea Turtle, and Texas Prairie Dawn (Ref. 45, pp. 1-6).

3.3 SOIL EXPOSURE PATHWAY

The soil exposure pathway is evaluated based on the threat to residents and nearby populations from soil contamination within the first two feet bgs.

3.3.1 Site Setting and Exposed Sources

The site is generally flat with a slight slope across most of the site to the north and east towards Vince Bayou. A large portion of the site has impervious cover, including the building foundations, tank farm, aeration basin, storm water retention pond and the paved parking lot. The majority of the western and southern half of the site is unpaved and covered with grass or vegetation (Ref. 9, p. 1). Releases to soils on the site and to areas located topographically downgradient of the site have been documented throughout the facility's operational history and confirmed by sample analysis (see Section 2.5 Previous Investigations).

3.3.2 Soil Pathway Receptors

A complete soil pathway likely exists for workers who are working onsite or in areas located between the USOR facility and Vince Bayou where spills/releases have flowed from the facility. Direct exposure sources and/or soil contamination exists in these areas and poses a risk to people working in these areas via the soil exposure pathway.

There are no residences, schools, or daycare facilities located on or near an area of suspected soil contamination or a direct exposure source. The nearest residential

subdivisions are located approximately 330 feet southwest and 1,500 feet southeast of the site (Figure 2.2). The residential areas are not located downgradient of surface water drainage from the site. Soil contamination has not been identified or suspected in the residential areas that are located south of the site. The nearest school and/or daycare facilities are located approximately one mile south of the site and south of State Highway 225.

No terrestrial sensitive environments are located within the known soil exposure pathway or areas of suspected soil contamination. (Ref. 46, p. 1)

3.4 AIR MIGRATION PATHWAY

The air migration pathway covers a 4-mile radius that extends from sources at the site.

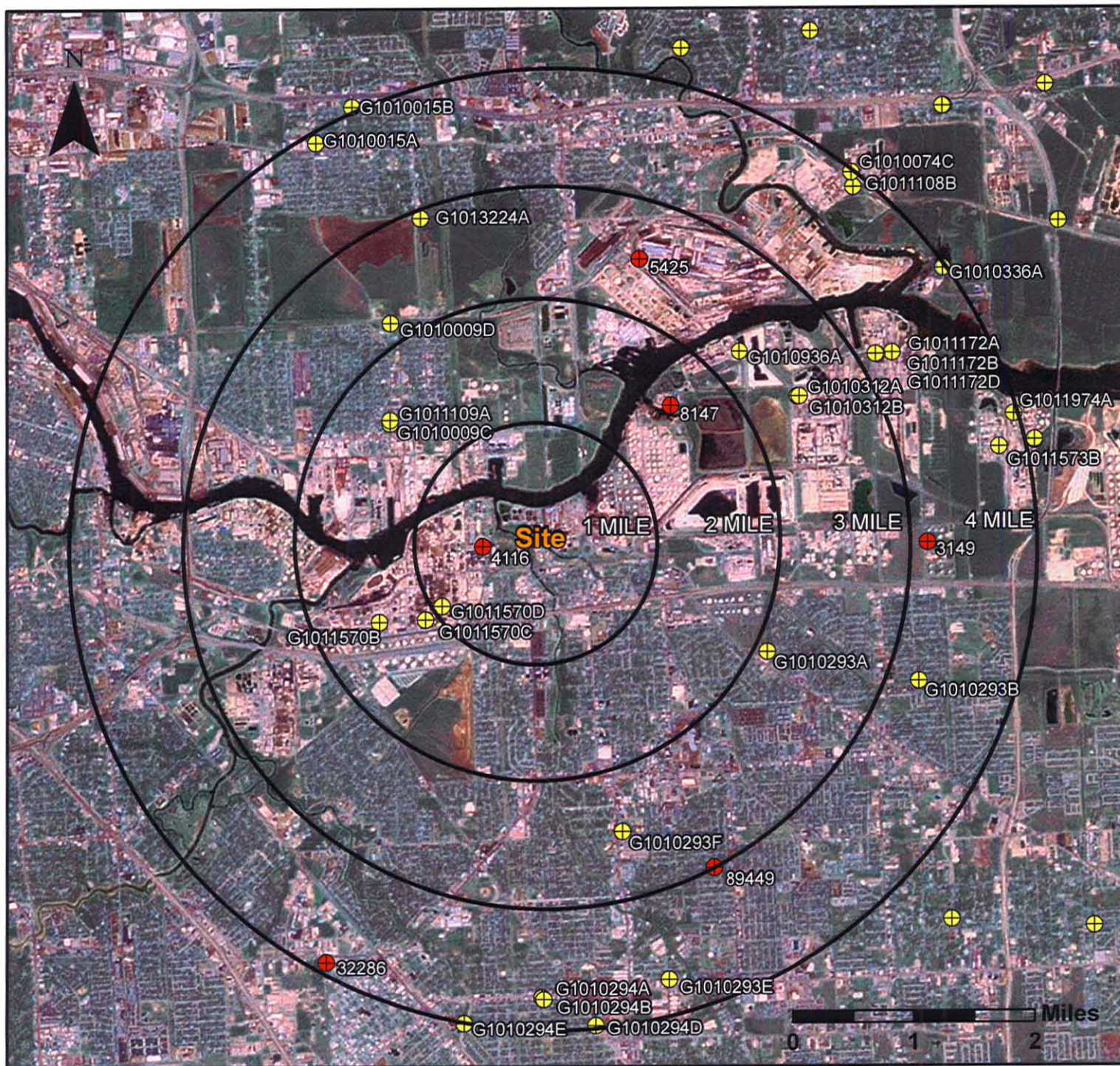
3.4.1 Air Pathway Sources and Setting

All of the sources listed in Section 2.4.1 could potentially cause air emissions that could be exposed to air pathway receptors. Analysis of air samples collected downwind of the site on December 14, 2008 detected benzene, toluene, and xylene exceeding their respective TCEQ Effects Screening Levels (ESLs) (Ref. 29, p. 3). Several air sampling events have indicated odor releases downwind of the site (see Section 2.3 Previous Investigations).

3.4.2 Air Pathway Receptors

Residential subdivisions are located approximately 330 feet southwest and 1,500 feet southeast of the site (Figure 2.2). The nearest school is Pasadena High School, located at 206 Shaver Street in Pasadena, approximately 0.7 miles southeast of the site (Ref. 47, p. 1). The nearest daycare facility is In Loving Hands Daycare, located at 604 Shaver Street in Pasadena, approximately 1.1 miles southeast of the site (Ref. 48, p. 1). The nearest outdoor recreation area is Memorial Park, located approximately 0.7 miles south of the site (Ref. 49, p. 1). The nearest church is New Testament Church, located at 209 West Shaw Avenue in Pasadena, approximately 0.6 miles southeast of the site (Ref. 50, p. 1).

Utility easements, underground petroleum pipelines, and railroads are located adjacent to the site. These areas are routinely visited by off-site workers who could be exposed to air emissions from the site.



**FIGURE 3.1: 4-MILE TARGET
DISTANCE LIMIT MAP**

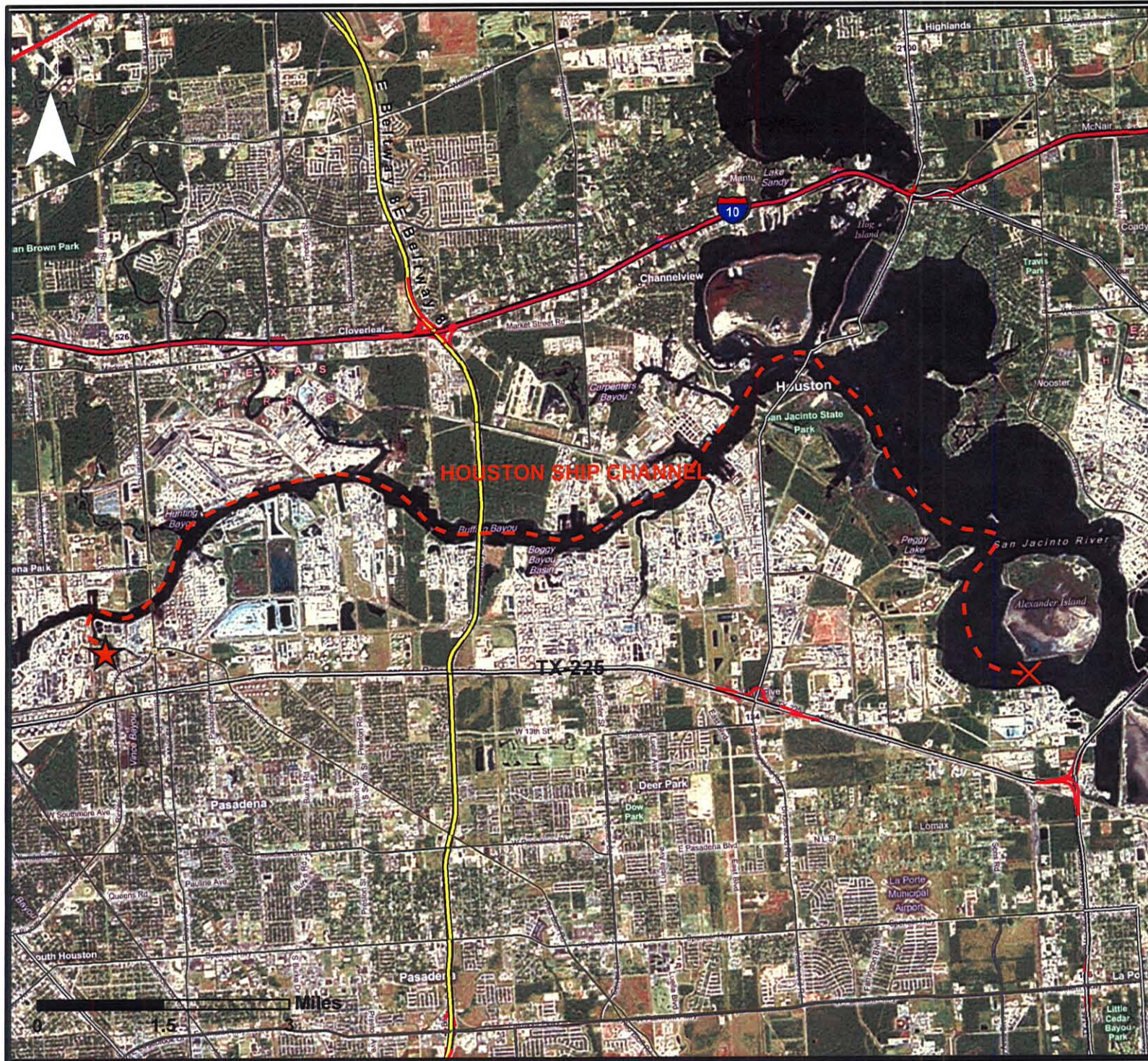
**US OIL RECOVERY, LLC
400 NORTH RICHEY STREET,
PASADENA, HARRIS COUNTY,
TEXAS**

TXR000051540

- Public Water Supply Well
- Domestic Well



The base data used for this map is the 1983 National Agriculture Imagery Program (NAIP). Aerial Imagery of Harris County Projection: NAD1983, UTM Zone 15. This map was generated by the Remediation Division of the Texas Commission on Environmental Quality. It is intended for illustrative or informational purposes only, and is not suitable for legal, engineering, or survey purposes. This map does not represent an on-the-ground survey conducted by or under the supervision of a registered professional land surveyor. In cases where property boundaries are shown, it only represents their approximate relative location. No claims are made to the accuracy or completeness of the data or to its suitability for a particular use. For more information concerning this map, contact the Remediation Division at 800-633-9363. Map created on March 14, 2011 by O. Salinas.



**FIGURE 3.2: 15-MILE
TARGET DISTANCE
LIMIT MAP**

**US OIL RECOVERY, LLC
400 NORTH RICHEY
STREET, PASADENA,
HARRIS COUNTY, TEXAS**

TXR000051540

-  Site
-  15-Mile Surface Water
Segment Downstream
From Site



The base data used for this map is the 2009 National Agriculture Imagery Program (NAIP). Aerial Imagery of Harris County Projection: NAD1983, UTM Zone 15. This map was generated by the Remediation Division of the Texas Commission on Environmental Quality. It is intended for illustrative or informational purposes only, and is not suitable for legal, engineering, or survey purposes. This map does not represent an on-the-ground survey conducted by or under the supervision of a registered professional land surveyor. In cases where property boundaries are shown, it only represents their approximate relative location. No claims are made to its accuracy or completeness of the data or to its suitability for a particular use. For more information concerning this map, contact the Remediation Division at 800-633-9363. Map created on March 2011 by O. Salinas.

Groundwater Pathway – A complete groundwater pathway may exist at the site as on-site groundwater contamination has been observed in previous investigations, and several PWS groundwater wells are located within four miles of the site.

Surface Water Pathway – A complete surface water pathway may exist at the site because there have been at least two documented occurrences of contaminated surface water flowing from the site and entering Vince Bayou. Vince Bayou is not used as a drinking water source; however, it could pose a threat to aquatic life and humans through consumption and recreational contact.

Soil Pathway – A complete soil pathway likely exists for workers who are working onsite or in areas located between the USOR facility and Vince Bayou where spills/releases have flowed from the facility. Direct exposure sources and/or soil contamination exists in these areas and poses a risk via the soil exposure pathway. Soil contamination has not been identified in the residential areas that are located south of the site.

Air Pathway – A complete air pathway may exist on- and off-site, as waste remains at the site. Several previous investigations documented a release of hazardous substances in air downwind of the site. There are numerous residents, schools, churches, and parks located within four miles of the site.

1. United States Environmental Protection Agency. *Federal Register – 40 CFR Part 300: Hazard Ranking System: Final Rule*, Volume 55, No. 241, December 14, 1990. 1 excerpted page.
2. United States Environmental Protection Agency. *Hazard Ranking System Guidance Manual*, EPA 540-R-92-026, OSWER Publication 9345.1-07, November 1992. 1 excerpted page.
3. United States Environmental Protection Agency. *Guidance for Performing Preliminary Assessments Under CERCLA*, EPA 540/G-91/013, OERR Publication 9345 0-01A, September 1991. 1 excerpted page.
4. State of Texas: Harris County. *Industrial Solid Waste Deed Notice of Waste Disposal*. Dated July 29, 2003. 6 pages.
5. Harris County Appraisal District: *Real Property Account Information for US Oil Recovery LLC*. Available at www.hcad.org. Accessed on April 6, 2011. 1 page.
6. Texas Secretary of State. Business Organization Inquiry for US Oil Recovery LLC. Available at www.direct.sos.state.tx.us. Accessed on April 6, 2011. 1 page.
7. Environmental Protection Agency (EPA). *Pollution/Situation Report- Initial Report – Polrep # 1 - #8. U.S Oil Recovery*. Dated July 2, 2010 and written by Adam Adams. 23 pages.
8. Texas Commission on Environmental Quality. *Field Notes for U.S. Oil Recovery LLC. EPA Emergency Response*. Notes dated July 1, 2010 through November 5, 2010. Written by Terry Andrews, Team Leader, 179 pages.
9. Google Maps. US Oil Recovery LLC: Site Map located at 400 North Richey Street, Pasadena, Texas. Available at www.maps.google.com. Accessed on January 18, 2011. 1 page.
10. ACER Environmental Systems, Inc. Environmental Site Assessment Phase I for Decker MC Kim Inc., La Porte, Texas. Dated September 13, 1991. 3 pages.
11. Texas Commission on Environmental Quality. *Interoffice Memorandum: US Oil Recovery LLC Proposed Enforcement for Site Remediation*. Dated September 8, 2006 and written by Edgar St. James, P.G. 5 pages.

12. Environmental Protection Agency (EPA). *Letter of Issuance of Unilateral Administrative Order Pursuant to Section 7003 of the Resource Conservation and Recovery Act for US Oil Recovery*. Dated June 21, 2010. Signed by John Blevins, Director of Compliance Assurance and Enforcement Division.
13. U.S. Oil Recovery. *Letter of Request to Process Industrial Solid Waste without a Permit Pursuant to 30 TAC 335(d)(3)*. Dated August 26, 2003. 3 pages.
14. Harris County Appraisal District: *Real Property Account Information for US Oil Recovery No. 2 LLP*. Available at www.hcad.org. Accessed on April 6, 2011. 1 page.
15. Texas Commission on Environmental Quality. *Investigation Report for MCC Recycling LLC*. Dated June 3-9, 200 and written by Edgar St. James. 9 pages.
16. Weston Solutions. *Technical Report for USOR- Analytical Assessment*. Dated August 17, 2010. 10 pages.
17. Texas Commission on Environmental Quality. *Notice of Enforcement for Sampling Investigation at US Oil Recovery*. Dated February 28, 2008 and written by Nicole M. Bealle, P.G. 3 pages.
18. Texas Commission on Environmental Quality. *Field Notes for U.S. Oil Recovery LLC. EPA Emergency Response*. Notes dated November 9, 2010 through December 20, 2010. Written by Olga Salinas, Project Manager, 96 pages.
19. Espey, Huston & Associates, Inc. *Phase 2A Environmental Site Assessment Results for 400 North Richey Street, Pasadena, Texas*. Report date October 30, 1991. Written and signed by R. Gary Montgomery, P.E. (Vice President). 5 pages.
20. Espey, Huston & Associates, Inc. *Phase 2B Environmental Site Assessment Results for 400 North Richey Street, Pasadena, Texas*. Report date November 14, 1991. Written and signed by R. Gary Montgomery, P.E. (Vice President) and David A. Patterson, P.E. (Project Manager). 3 pages.
21. Texas Water Commission. *Notice of Solid Waste Violations for Covesud, S.A.* Letter dated October 7, 1992, Written by Thomas W. Weber. 4 pages.
22. EFEH & Associates. *Environmental Site Assessment for Arsenic in Groundwater at 400 North Richey Street, Pasadena, Texas*. Report date August 27, 2001. 17 pages.
23. US Oil Recovery. *Submittal of Waste Removal Report*. Letter dated September 22, 2003, Written and signed by Klaus Gennsler, President. 2 pages.

24. Texas Commission on Environmental Quality. *Approval of Remedy Standard A – Commercial/Industrial and Institutional Control for US Oil Recovery*. Letter dated October 17, 2003, written by Catherine Liu, Project Manager. 2 pages.
25. Texas Commission on Environmental Quality. *Investigation Report for U.S. Oil Recovery LLC*. Dated October 7, 2005 and written by Chawana Como. 9 pages.
26. US Oil Recovery. *NOV for Pre-opening Inspection*. Letter dated March 2, 2006. Written by Bill Shafer. 2 pages.
27. Texas Commission on Environmental Quality. *Investigation Report for U.S. Oil Recovery LLC*. Dated May 25, 2006 and written by Edgar St. James, P.G. 5 pages.
28. Texas Commission on Environmental Quality. *Complaint Investigation at US Oil Recovery*. Dated October 9, 2006 and written by Jason T. Ybarra. 2 pages.
29. Texas Commission on Environmental Quality. *Investigation Report for U.S. Oil Recovery LLC*. Dated March 6, 2008. Written by Terry Vasut, 5 pages.
30. US Oil Recovery. *NRC Report No. 905711*. Dated October 12, 2009. 4 pages.
31. Texas Water Development Board. *Aquifers of the Gulf Coast of Texas (Report 365)*. Available at <http://www.twdb.state.tx.us>.
32. US Oil Recovery LLC. *Affected Property Assessment Report (APAR). Reg. I.D. No. SWR52123 at 400 North Richey, Pasadena, Texas 77506*. Dated May 16, 2002. 270 pages.
33. United States Department of Agriculture. Natural Resources Conservation Service. Web Soil Survey. *Map of Area of Interest: 400 N. Richey Street, Pasadena, Texas*. Available at www.websoilsurvey.nrcs.usda.gov. Accessed on August 20, 2010. 1 page.
34. United States Department of Agriculture. Natural Resources Conservation Service. *Map Unit Description: Harris County: Lake Charles-Urban land Complex (Lu)*. Available at www.websoilsurvey.nrcs.usda.gov. Accessed on August 20, 2010. 2 pages.
35. Pasadena, Texas Weather. Available at www.idcide.com/weather/tx/pasadena. Accessed on February 25, 2011. 2 pages.

36. Texas Department of Water Resources. *Digital Models for Simulation of Ground-Water Hydrology of the Chicot and Evangeline Aquifers Along the Gulf Coast of Texas*. Published on May 1985.
37. Texas Commission on Environmental Quality. Telephone Memo to the File. Telephone conversation between Olga Salinas and the City of Pasadena. Dated of call January 13, 2011. 1 page.
38. Harris-Galveston Subsidence District. *Well Data Permitted By District Within 4 Miles of 400 North Richey Street, Pasadena, Texas*. January 2011. 6 pages
39. Texas Commission on Environmental Quality. TCEQ TNET: State of Texas Utilities, Districts, and Public Drinking Water Home Page. *Water System Data Sheet Report: PWS # 1011570, 1010009, 1010293, 1010312, 1010936, 1013224, 1010015, 1010294, 1011172, 1011573, 1010074, 1011108, 1010336 and 1011974*. Available at <http://agmt.tceq.state.tx.us/iwud/pws>. 72 pages.
40. Federal Emergency Management Agency. Flood Insurance Rate Map: *Harris County, Texas. Panel 905 of 1150. Community-Panel Number 480307 – 0905 L*. Accessed August 31, 2009. 1 page.
41. FEMA Flood Zone Destinations. Accessed on September 10, 2010. 1 page.
42. Texas Natural Resource Conservation Commission. *Chapter 307- Texas Surface Water Quality Standards*. 144 pages. 1 excerpted page.
43. Texas Department of Health: *Consumption Advisory-ADV 20: Houston Ship Channel*. Issued on October 9, 2001. 1 page.
44. US Fish and Wildlife Service-Natural Wetlands Inventory. *USOR Wetlands*. Available at <http://www.fws.gov/wetlands/Data/Mapper.html>. Accessed on September 7, 2010. 3 pages.
45. Texas Parks and Wildlife Department: *Annotated County List of Rare Species for Harris County*. Available at <http://www.tpwd.state.tx.us>. 6 pages.
46. United States Geological Survey, *Topographical Map for Pasadena, Texas*, 1995, 1 page.
47. Google Maps. Schools near 400 North Richey Street, Pasadena, Texas. Available at www.maps.google.com. Accessed on September 7, 2010. 1 page.

48. Google Maps. Daycare facilities located near 400 North Richey Street, Pasadena, Texas. Available at www.maps.google.com. Accessed on September 7, 2010. 1 page.
49. Google Maps. Parks near 400 North Richey Street, Pasadena, Texas. Available at www.maps.google.com. Accessed on September 7, 2010. 1 page.
50. Google Maps. Church facilities near 400 North Richey Street, Pasadena, Texas. Available at www.maps.google.com. Accessed on September 7, 2010. 1 page.

References

Preliminary Assessment Report

US Oil Recovery, LLC

Pasadena, Harris County, Texas

TXR000051540

Reference 1:

**United States Environmental Protection Agency. Federal Register – 40 CFR Part
300: Hazard Ranking System: Final Rule, Volume 55, No. 241, December 14,
1990. 1 excerpted page.**

Appendix A to Part 300—The Hazard Ranking System

Table of Contents

List of Figures

List of Tables

1.0. Introduction.

1.1 Definitions.

2.0 Evaluations Common to Multiple Pathways.

2.1 Overview.

2.1.1 Calculation of HRS site score.

2.1.2 Calculation of pathway score.

2.1.3 Common evaluations.

2.2 Characterize sources.

2.2.1 Identify sources.

2.2.2 Identify hazardous substances associated with a source.

2.2.3 Identify hazardous substances available to a pathway.

2.3 Likelihood of release.

2.4 Waste characteristics.

2.4.1 Selection of substance potentially posing greatest hazard.

2.4.1.1 Toxicity factor.

2.4.1.2 Hazardous substance selection.

2.4.2 Hazardous waste quantity.

2.4.2.1 Source hazardous waste quantity.

2.4.2.1.1 Hazardous constituent quantity.

2.4.2.1.2 Hazardous wastestream quantity.

2.4.2.1.3 Volume.

2.4.2.1.4 Area.

2.4.2.1.5 Calculation of source hazardous waste quantity value.

2.4.2.2 Calculation of hazardous waste quantity factor value.

2.4.3 Waste characteristics factor category value.

2.4.3.1 Factor category value.

2.4.3.2 Factor category value, considering bioaccumulation potential.

2.5 Targets.

2.5.1 Determination of level of actual contamination at a sampling location.

2.5.2 Comparison to benchmarks.

3.0 Ground Water Migration Pathway.

3.0.1 General considerations.

3.0.1.1 Ground water target distance limit.

3.0.1.2 Aquifer boundaries.

3.0.1.2.1 Aquifer interconnections.

3.0.1.2.2 Aquifer discontinuities.

3.0.1.3 Karst aquifer.

3.1 Likelihood of release.

3.1.1 Observed release.

3.1.2 Potential to release.

3.1.2.1 Containment.

3.1.2.2 Net precipitation.

3.1.2.3 Depth to aquifer.

3.1.2.4 Travel time.

3.1.2.5 Calculation of potential to release factor value.

3.1.3 Calculation of likelihood of release factor category value.

3.2 Waste characteristics.

3.2.1 Toxicity/mobility.

3.2.1.1 Toxicity.

3.2.1.2 Mobility.

3.2.1.3 Calculation of toxicity/mobility factor value.

3.2.2 Hazardous waste quantity.

3.2.3 Calculation of waste characteristics factor category value.

3.3 Targets.

3.3.1 Nearest well.

3.3.2 Population.

3.3.2.1 Level of contamination.

3.3.2.2 Level I concentrations.

3.3.2.3 Level II concentrations.

3.3.2.4 Potential contamination.

3.3.2.5 Calculation of population factor value.

3.3.3 Resources.

3.3.4 Wellhead Protection Area.

3.3.5 Calculation of targets factor category value.

3.4 Ground water migration score for an aquifer.

3.5 Calculation of ground water migration pathway score.

4.0 Surface Water Migration Pathway.

4.0.1 Migration components.

4.0.2 Surface water categories.

4.1 Overland/flood migration component.

4.1.1 General considerations.

4.1.1.1 Definition of hazardous substance migration path for overland/flood migration component.

4.1.1.2 Target distance limit.

4.1.1.3 Evaluation of overland/flood migration component.

4.1.2 Drinking water threat.

4.1.2.1 Drinking water threat-likelihood of release.

4.1.2.1.1 Observed release.

4.1.2.1.2 Potential to release.

4.1.2.1.2.1 Potential to release by overland flow.

4.1.2.1.2.1.1 Containment.

4.1.2.1.2.1.2 Runoff.

4.1.2.1.2.1.3 Distance to surface water.

4.1.2.1.2.1.4 Calculation of factor value for potential to release by overland flow.

4.1.2.1.2.2 Potential to release by flood.

4.1.2.1.2.2.1 Containment (flood).

4.1.2.1.2.2.2 Flood frequency.

4.1.2.1.2.2.3 Calculation of factor value for potential to release by flood.

4.1.2.1.2.3 Calculation of potential to release factor value.

4.1.2.1.3 Calculation of drinking water threat-likelihood of release factor category value.

4.1.2.2 Drinking water threat-waste characteristics.

4.1.2.2.1 Toxicity/persistence.

4.1.2.2.1.1 Toxicity.

4.1.2.2.1.2 Persistence.

4.1.2.2.1.3 Calculation of toxicity/persistence factor value.

4.1.2.2.2 Hazardous waste quantity.

4.1.2.2.3 Calculation of drinking water threat-waste characteristics factor category value.

4.1.2.3 Drinking water threat-targets.

4.1.2.3.1 Nearest intake.

4.1.2.3.2 Population.

4.1.2.3.2.1 Level of contamination.

4.1.2.3.2.2 Level I concentrations.

4.1.2.3.2.3 Level II concentrations.

4.1.2.3.2.4 Potential contamination.

4.1.2.3.2.5 Calculation of population factor value.

4.1.2.3.3 Resources.

4.1.2.3.4 Calculation of drinking water threat-targets factor category value.

4.1.2.4 Calculation of the drinking water threat score for a watershed.

4.1.3 Human food chain threat.

4.1.3.1 Human food chain threat-likelihood of release.

4.1.3.2 Human food chain threat-waste characteristics.

4.1.3.2.1 Toxicity/persistence/bioaccumulation.

4.1.3.2.1.1 Toxicity.

4.1.3.2.1.2 Persistence.

4.1.3.2.1.3 Bioaccumulation potential.

4.1.3.2.1.4 Calculation of toxicity/persistence/bioaccumulation factor value.

4.1.3.2.2 Hazardous waste quantity.

4.1.3.2.3 Calculation of human food chain threat-waste characteristics factor category value.

4.1.3.3 Human food chain threat-targets.

4.1.3.3.1 Food chain individual.

4.1.3.3.2 Population.

4.1.3.3.2.1 Level I concentrations.

4.1.3.3.2.2 Level II concentrations.

4.1.3.3.2.3 Potential human food chain contamination.

4.1.3.3.2.4 Calculation of population factor value.

4.1.3.3.3 Calculation of human food chain threat-targets factor category value.

4.1.3.4 Calculation of human food chain threat score for a watershed.

4.1.4 Environmental threat.

4.1.4.1 Environmental threat-likelihood of release.

4.1.4.2 Environmental threat-waste characteristics.

4.1.4.2.1 Ecosystem toxicity/persistence/bioaccumulation.

4.1.4.2.1.1 Ecosystem toxicity.

4.1.4.2.1.2 Persistence.

4.1.4.2.1.3 Ecosystem bioaccumulation potential.

4.1.4.2.1.4 Calculation of ecosystem toxicity/persistence/bioaccumulation factor value.

4.1.4.2.2 Hazardous waste quantity.

4.1.4.2.3 Calculation of environmental threat-waste characteristics factor category value.

4.1.4.3 Environmental threat-targets.

4.1.4.3.1 Sensitive environments.

4.1.4.3.1.1 Level I concentrations.

4.1.4.3.1.2 Level II concentrations.

4.1.4.3.1.3 Potential contamination.

4.1.4.3.1.4 Calculation of environmental threat-targets factor category value.

4.1.4.4 Calculation of environmental threat score for a watershed.

4.1.5 Calculation of overland/flood migration component score for a watershed.

4.1.6 Calculation of overland/flood migration component score.

4.2 Ground water to surface water migration component.

4.2.1 General Considerations.

4.2.1.1 Eligible surface waters.

4.2.1.2 Definition of hazardous substance migration path for ground water to surface water migration component.

4.2.1.3 Observed release of a specific hazardous substance to surface water in water segment.

4.2.1.4 Target distance limit.

4.2.1.5 Evaluation of ground water to surface water migration component.

4.2.2 Drinking water threat.

4.2.2.1 Drinking water threat-likelihood of release.

4.2.2.1.1 Observed release.

4.2.2.1.2 Potential to release.

Reference 2:

**United States Environmental Protection Agency. Hazard Ranking System Guidance
Manual, EPA 540-R-92-026, OSWER Publication 9345.1-07, November 1992.
1 excerpted page.**

United States
Environmental Protection
Agency

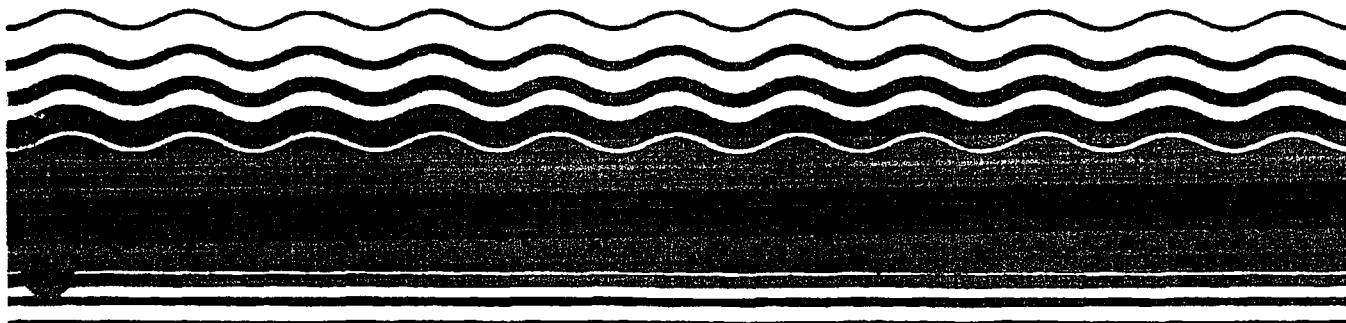
Office of Solid Waste
and Emergency
Response

Publication 9345.1-07
PB92-963377
EPA 540-R-92-026
November 1992

Superfund



Hazard Ranking System Guidance Manual



Reference 3:

**United States Environmental Protection Agency. Guidance for Performing
Preliminary Assessments Under CERCLA, EPA 540/G-/91/013, OERR
Publication 9345 0-01A, September 1991. 1 excerpted page.**

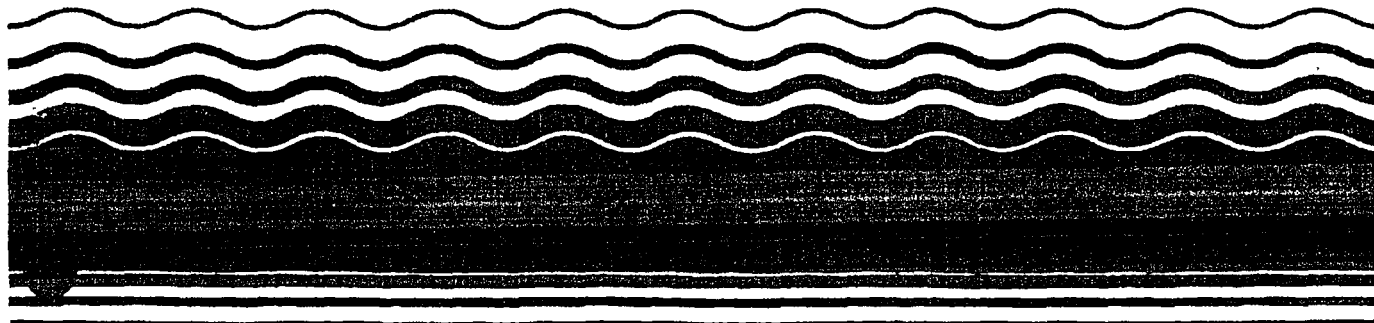
United States
Environmental Protection
Agency

Office of Emergency and
Remedial Response
Washington DC 20460

EPA/540/G-91/013
September 1991



Guidance for Performing Preliminary Assessments Under CERCLA



Reference 4:

State of Texas: Harris County. Industrial Solid Waste Deed Notice of Waste Disposal. Dated July 29, 2003. 6 pages.

Notice

INDUSTRIAL SOLID WASTE
DEED NOTICE OF WASTE DISPOSAL

W875842
07/29/03 100219193

\$19.00

STATE OF TEXAS

COUNTY OF HARRIS

Pursuant to the rules of the Texas Commission on Environmental Quality (TCEQ) pertaining to Industrial Solid Waste Management, this document is hereby filed in the Deed Records of Harris County, Texas in compliance with the recordation requirements of said rules. *llw*

This notice is filed to provide information concerning the historic disposal of industrial solid waste at the real property 400 N. Richey, Pasadena, TX described as follows:

ATTACHED HERETO AND INCORPORATED HEREIN BY REFERENCE
SEE LEGAL DESCRIPTION ON THE ATTACHED EXHIBIT A

Soil containing arsenic was disposed of on a portion of the Property described as follows:

ATTACHED HERETO AND INCORPORATED HEREIN BY REFERENCE.
SEE LEGAL DESCRIPTION ON THE ATTACHED EXHIBIT B AND SURVEY ON
ATTACHED EXHIBIT C An approximate 6,500 sq. ft. pit area 44.15' by 137.04'
situated immediately South of the 1 story brick and metal building. Said area remediated
by use of rock caliche 2 1/2 to 3 1/2 feet thick, crushed and packed with sheep shank
roller.

As of the date of this Notice, the record owner of fee title to the Property is Diethelm Rehn with
an address of P O Box 677, Seabrook, TX 77586.

For additional information, contact :

TCEQ
Central Records
12100 Park 35 Circle, Building E
Austin, TX 78753

Mail: TECQ - MC 199
P O Box 13087
Austin, TX 78711-3087

TCEQ Program and Identifier No: 52123

FILED
2003 JUL 29 AM 10:45
COUNTY CLERK
HARRIS COUNTY, TEXAS
Diethelm Rehn

This Notice may be rendered of no further force or effect only by a superseding deed notice executed by the TCEQ or its successor agencies and filed in the same Real Property Records as those in which this Deed Notice is filed

Executed this 11 day of July 2003

OWNER

BY

NAME

TITLE

Diethelm Rehn
DIETHELM REHN
PRESIDENT

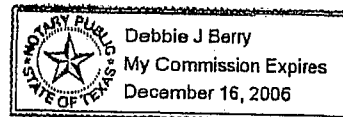
STATE OF TEXAS
COUNTY OF HARRIS

BEFORE ME, on this the 11 day of July 2003, personally appeared Diethelm Rehn, OWNER, known to me to be the person whose name is subscribed to the foregoing instrument, and they acknowledged to me that they executed the same for the purposes and consideration there expressed. 100

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 11 day of July 2003.

Notary Public in and for the State of
Texas, County of Harris

My Commission Expires:



When Recorded Please

Return To:

✓
Decker McKim Realtors, LLC
3101 Nasa Road I, Suite D
Seabrook, TX 77586

... from ... to North American Hide Exporters Harris County Clerk's File No. 171-38-0069 date December 4, 1971 out of Lots 5 and 6, Sublot 35 of Townsite of Pasadena, as per the map or plat thereof recorded in Volume 93, Page 21 of the Deed Records of Harris County, Texas, and being situated in the William Vince Survey, Abstract No. 78, City of Pasadena, Harris County, Texas, said 12.2334 acres tract being more particularly described by metes and bounds as follows: (Bearings based on a survey by W.L. Baugh, R.P.S., dated February 20, 1971.)

BEGINNING at a 5/8 inch iron rod found for the intersection of the north right-of-way line of the Port Terminal Railroad Track (based on a 100.00 foot wide right-of-way) and the west right-of-way line of North Richey Street (based on a 40.00 foot wide right-of-way);

THENCE South 87 deg. 37 min. 10 sec. West along the north right-of-way line of said Port Terminal Railroad Track and the south line of the herein described tract, a distance of 592.07 feet to a 5/8 inch iron rod set for corner, said iron rod being at the intersection of the north right-of-way line of said Port Terminal Railroad Track and the east right-of-way line of a 60.00 foot wide Texas Pipeline Company Fee Strip, as recorded in Volume 1824, Page 279 of the Deed Records of Harris County, Texas;

THENCE North 02 deg. 28 min. 30 sec. West along the east right-of-way line of said Texas Pipeline Company Fee Strip and the west line of the herein described tract, a distance of 31.075.62 feet to a 5/8 inch iron rod set for corner, said iron rod being at the intersection of the east right-of-way line of said Texas Pipeline Company Fee Strip and the south right-of-way line of a Houston Lighting and Power Company right-of-way, as recorded in Volume 1574, Page 69, Deed Records of Harris County, Texas;

THENCE North 87 deg. 37 min. 10 sec. East along the south line of said Houston Lighting and Power Company right-of-way and the north line of the herein described tract, passing at a distance of 300.00 feet a 5/8 inch iron rod set for reference, and continuing for a total distance of 323.09 feet to a point for the west corner of a called 0.1960 acre tract conveyed to the Harris County Flood Control District, by deed recorded in Harris County Clerk's File No. C522240 of the Deed Records of Harris County, Texas;

Exhibit A
400 N. Richey
Pasadena TX 77505

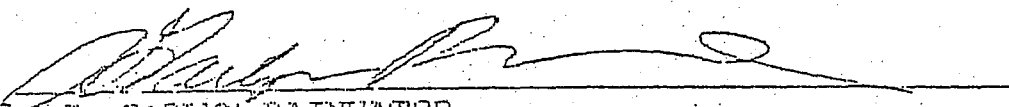
... and the most northerly northeast line of the herein described tract, a distance of 187.03 feet to a point for corner, said point also being the south corner of said 0.1960 acre tract and in the most easterly west line of said Houston Lighting and Power Company right-of-way;

THENCE South 02 deg. 28 min. 30 sec. East along the most easterly west line of said Houston Lighting and Power Company right-of-way and the most westerly east line of the herein described tract, passing at a distance of 122.84 feet a 1/2 inch iron rod found for reference, and continuing for a total distance of 322.84 feet to a 5/8 inch iron set for an angle point, from said iron rod a 1/2 inch iron rod in concrete was found bearing South 35 deg. 28 min. 43 sec. East, 2.02 feet;

THENCE South 19 deg. 57 min. 20 sec. East, continuing along the aforesaid common line, a distance of 466.07 feet to a 5/8 inch iron rod set for corner, said iron rod also being at the intersection of the aforesaid common line and the west right-of-way line of said North Richey Street, same being the most southerly corner of said Houston Lighting and Power Company right-of-way;

THENCE South 02 deg. 28 min. 30 sec. East along the west right-of-way line of said North Richey Street and the most easterly line of the herein described tract, a distance of 173.23 feet to the PLACE OF BEGINNING of the herein described tract of land and containing within these calls 532,887 square feet or 12.2334 acres of land.

WITNESS MY HAND AND SEAL THIS THE 27TH DAY OF NOVEMBER, 1991.
REVISED & UPDATED: JANUARY 21, 1997

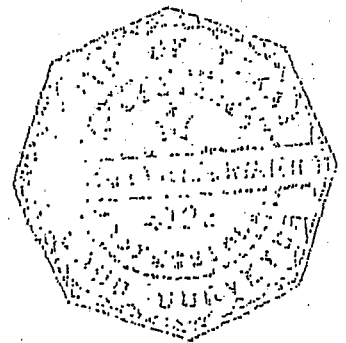

J. CARLYN RAINWATER

Registered Professional Land Surveyor No. 4722

FOSTER-RAINWATER & ASSOCIATES SURVEYING, INC.
4202 Allen Road
Pearland, Texas 77584
Phone No.: (281) 489-0189

Job No.: 91155

WS5/91FILES/91155



A 6,050 SQUARE FOOT FILLED PIT TRACT LOCATED IN A 12.2334 ACRE TRACT OUT OF LOTS 5 AND 6, OUTLOT 35, TOWNSITE OF PASADENA, AS RECORDED IN VOLUME 93, PAGE 21 OF THE DEED RECORDS OF HARRIS COUNTY, TEXAS, LYING WITHIN THE WILLIAM VINCE SURVEY, ABSTRACT NO. 78, CITY OF PASADENA, HARRIS COUNTY, TEXAS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID 12.2334 ACRE TRACT (AS RECORDED UNDER FILE NO. V724007 OF THE HARRIS COUNTY CLERK'S RECORDS) LOCATED AT THE INTERSECTION OF THE WEST LINE OF NORTH RICHEY STREET AND THE NORTH LINE OF THE PORT TERMINAL RAILROAD 100 FOOT RIGHT-OF-WAY;

THENCE N 87° 37' 10" W, ALONG THE WEST LINE OF SAID 12.2334 ACRE TRACT AND THE NORTH LINE OF SAID PORT TERMINAL RAILROAD, A DISTANCE OF 592.07 FEET TO THE SOUTHWEST CORNER OF SAID 12.2334 ACRE TRACT;

THENCE N 02° 28' 30" W, ALONG THE WEST LINE OF SAID 12.2334 ACRE TRACT, A DISTANCE OF 630.47 FEET;

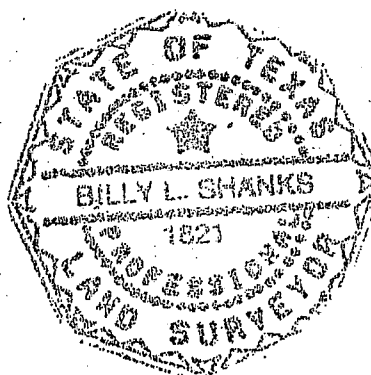
THENCE N 87° 54' 38" E 91.31 FEET TO THE POINT OF BEGINNING OF SAID FILLED PIT TRACT;

THENCE N 02° 28' 30" W 137.04 FEET;

THENCE N 87° 54' 38" E 44.15 FEET;

THENCE S 02° 28' 30" E 137.04 FEET;

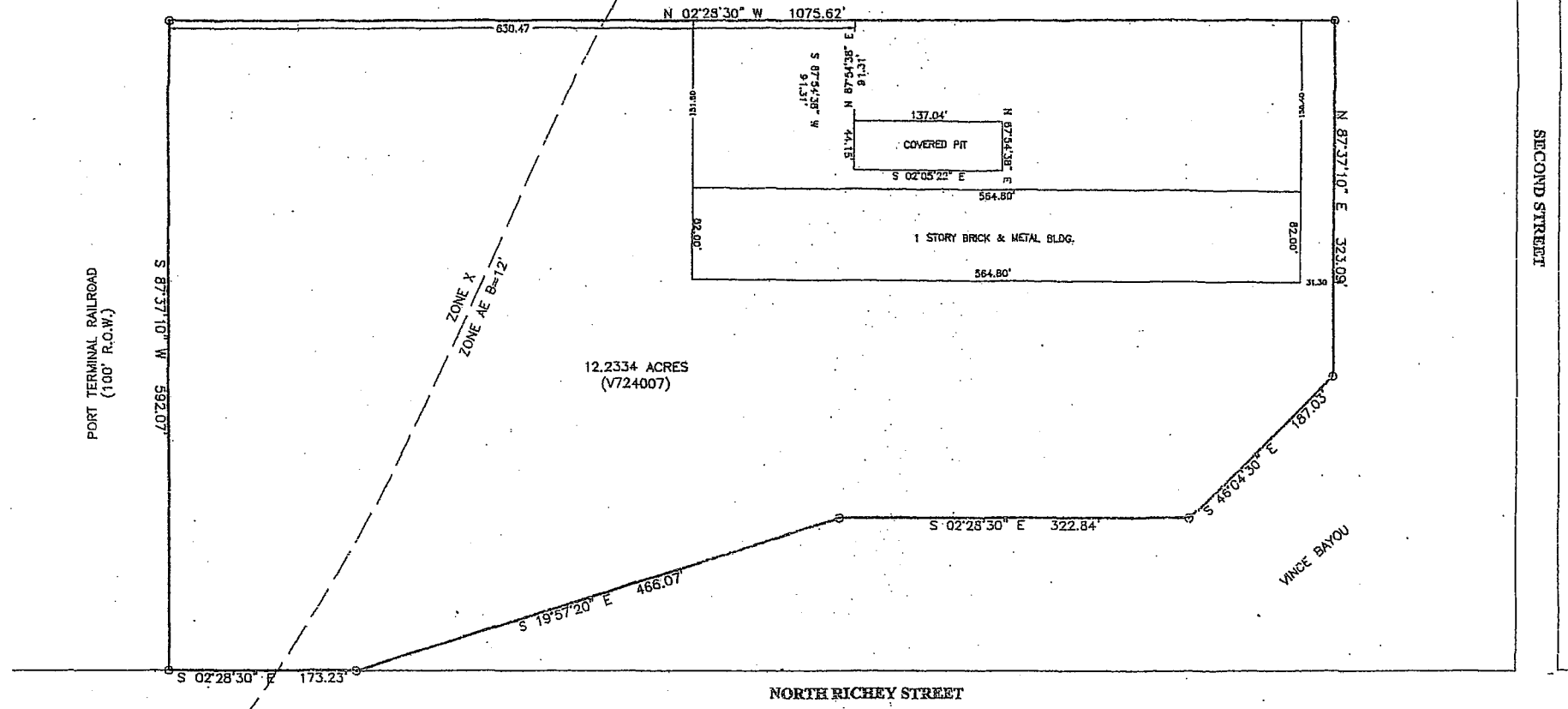
THENCE S 87° 54' 38" W 44.15 FEET TO THE POINT OF BEGINNING AND CONTAINING A COMPUTED AREA OF 6,050 SQUARE FEET.



Billy L. Shanks
7/01/03

Exhibit B

THE TEXAS PIPELINE CO.
(80' R.O.W.)
V.1824 P.279 HCDR



MAP OR PLAT RECORDED IN V.93 PG.21 HARRIS COUNTY DEED RECORDS.

Declaration is made to original purchaser of the survey. It is not transferable to additional institutions or subsequent owners.
Survey is valid only if print has original seal and signature of surveyor.
Bearings based on recorded plot. Found or set iron rods at all corners.

This Tract DOES NOT Lie Within The 100 Year Flood Plain According To FEMA Map No. 4803070905 J Dated 11/6/96 (zone AE).
Warning: Use This Flood Information At Your Own Risk.
This survey is subject to any facts that may be disclosed by a full and accurate title search.

SURVEY OF A COVERED PIT IN A 12.2334 ACRE TRACT OUT OF LOTS 5 AND 6, OUTLOT 35, TOWNSITE OF PASADENA, HARRIS COUNTY, TEXAS

Scale: 1"=100'
Date: 06/31/03
Revised:
Survey By: T.S.
Drawn By: C.H.
For:

THIS PLAT IS AN ACCURATE REPRESENTATION OF THAT
SURVEY MADE ON THE GROUND UNDER MY SUPERVISION.
THERE ARE NO APPARENT ENCROACHMENTS OR CONFLICTS
ACROSS PROPERTY LINES AT THE TIME OF THIS SURVEY,
EXCEPT AS SHOWN HEREON.

Purchaser:

Billy L. Shanks
BILLY L. SHANKS R.P.L.S. #1821

Job No. 03-40934

BILLY L. SHANKS

1414 WAVECREST LN.
HOUSTON, TEXAS 77062

281-488-1486
FAX 281-488-5526

Reference 5:

Harris County Appraisal District: Real Property Account Information for US Oil Recovery LLP. Available at www.hcad.org. Accessed on April 6, 2011.

1 page.

Wednesday, April 06, 2011

Tax Year: 2011

HARRIS COUNTY APPRAISAL DISTRICT
REAL PROPERTY ACCOUNT INFORMATION
0281810000022

 Print  E-mail
Ownership History**Owner and Property Information**

Owner Name & **U S OIL RECOVERY LLP**
Mailing Address: **% ACCOUNTING DEPARTMENT**
PO BOX 399
BELLAIRE TX 77402-0399

Legal **TRS 5 & 6**
Description: **PASADENA OUTLOT 35**
Property **400 N RICHEY ST**
Address: **PASADENA TX 77506**

State Class Code	Land Use Code	Building Class	Total Units
F2 -- Real, Industrial	4401 -- Manufacturing/Processing	E	0

Land Area	Building Area	Net Rentable Area	Neighborhood	Neighborhood Group	Market Area	Map Facet	Key Map®
532,891 SF	0	0	9729.02	0	4027	5755B	536C

Value Status Information**Capped Account**

Pending

Value Status

All Values Pending

Shared CAD

No

Exemptions and Jurisdictions

Exemption Type	Districts	Jurisdictions	ARB Status	2010 Rate	2011 Rate	Online Tax Bill
None	021	PASADENA ISD	Pending	1.350000		
	040	HARRIS COUNTY	Pending	0.388050		View
	041	HARRIS CO FLOOD CNTRL	Pending	0.029230		
	042	PORT OF HOUSTON AUTHY	Pending	0.020540		
	043	HARRIS CO HOSP DIST	Pending	0.192160		
	044	HARRIS CO EDUC DEPT	Pending	0.006581		
	047	SAN JACINTO COM COL D	Pending	0.176277		
	074	CITY OF PASADENA	Pending	0.591593		

Valuations

Value as of January 1, 2010

Value as of January 1, 2011

	Market	Appraised		Market	Appraised
Land	266,446		Land		
Improvement	543,580		Improvement		
Total	810,026	810,026	Total	Pending	Pending

5-Year Value History**Land****Market Value Land**

Line	Description	Site Code	Unit Type	Units	Size Factor	Site Factor	Appr O/R Factor	Appr O/R Reason	Total Adj	Unit Price	Adj Unit Price	Value
1	4401 -- Manufacturing/Processing	SF5	SF	532,891	1.00	1.00	1.00	--	1.00	Pending	Pending	Pending

Building**(No Building Data)**

Reference 6:

Texas Secretary of State. Business Organization Inquiry for US Oil Recovery LLC. Available at www.direct.sos.state.tx.us. Accessed on April 6, 2011. 1 page.

TEXAS SECRETARY of STATE

HOPE ANDRADE

[UCC](#) | [Business Organizations](#) | [Trademarks](#) | [Notary](#) | [Account](#) | [Help/Fees](#) | [Briefcase](#) | [Logout](#)

BUSINESS ORGANIZATIONS INQUIRY - VIEW ENTITY

Filing Number: 800018977 **Entity Type:** Foreign Limited Liability Company (LLC)
Original Date of Filing: October 8, 2001 **Entity Status:** Terminated
Formation Date: N/A
Tax ID: 19120185590 **FEIN:**
Name: U. S. OIL RECOVERY LLC
Address: 400 N RICHEY STREET
PASADENA, TX 77506 USA
Fictitious Name: N/A
Jurisdiction: DE, USA
Foreign Formation Date: March 26, 1999

<u>REGISTERED</u> <u>AGENT</u>	<u>FILING</u> <u>HISTORY</u>	<u>NAMES</u>	<u>MANAGEMENT</u>	<u>ASSUMED</u> <u>NAMES</u>	<u>ASSOCIATED</u> <u>ENTITIES</u>
Last Update	Name	Title	Address		
February 5, 2005	KLAUS GENSSLER	PRESIDENT	400 N RICHEY STREET PASADENA, TX 77506 USA		
February 5, 2005	CHRISTINE GOMEZ	SECRETARY	400 N RICHEY STREET PASADENA, TX 77506 USA		

[Order](#)[Return to Search](#)

Instructions:

- To place an order for additional information about a filing press the 'Order' button.

Reference 7:

Environmental Protection Agency (EPA). Pollution/Situation Report- Initial Report – Polrep # 1- #8. U.S Oil Recovery. Dated July 2, 2010 and written by Adam Adams. 23 pages.

[profile](#)[bulletins](#)[images](#)[documents](#)[Pol/Sitrepos](#)[contacts](#)[links](#)[login Pol/Sitrepos](#)[Navigate epa osc](#)

United States Environmental Protection Agency

[All POL/SITREP's for this site](#)

US Oil Recovery
Pasadena, TX - EPA Region VI
POLREP #1
Initial

[Printer Friendly Version](#)

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
US Oil Recovery - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VI

Subject: POLREP #1
Initial
US Oil Recovery
A6X7
Pasadena, TX
Latitude: 29.7177400 Longitude: -95.2210530

To:
From: Adam Adams, OSC
Date: 7/2/2010
Reporting Period: First 24 Hours

1. Introduction

1.1 Background

Site Number:	Contract Number:
D.O. Number:	Action Memo Date:
Response Authority: CERCLA	Response Type: Emergency
Response Lead: EPA	Incident Category: Removal Action
NPL Status: Non NPL	Operable Unit:
Mobilization Date: 7/1/2010	Start Date: 7/1/2010
Demob Date:	Completion Date:
CERCLIS ID:	RCRIS ID:
ERNS No.:	State Notification:
FPN#:	Reimbursable Account #:

1.1.1 Incident Category

Emergency Response/Emergency Removal Action

1.1.2 Site Description

US Oil Recovery is located on approximately 13 acres of land just north of the City of Pasadena, Texas north of Texas Highway 225. US Oil Recovery performed municipal and industrial wastewater pretreatment of Class I and Class II wastewater, characteristically hazardous waste, used oil and oily sludges, and municipal solid waste.

1.1.2.1 Location

US Oil Recovery is located at 400 N. Richey, Pasadena, Harris County, Texas 77506.

1.1.2.2 Description of Threat

Approximately 200 roll-off boxes (most labelled "Hazardous Waste Oct 09" or "Hazardous Waste Dec 09"), approximately 250 plus drums and approximately 200 plus 300 gallon totes are located throughout the site in no particular arrangement. A number of the roll-off boxes are not properly secured and open to the elements. A retention pond is located on the western side of the site and contains unknown chemicals. Additionally, there is a tank battery on the north end of the facility that contains approximately 24 aboveground storage tanks (AST's). The integrity of the AST's and secondary containment are not determined, but signs indicate potential issues. There is a large bioreactor on the northwest corner of the property that has no secondary containment and deteriorating walls. There are no employees operating the facility, and restriction of access. Any significant rainfall could and would cause an overflow of the retention pond, some rolloff boxes, the tank battery containment, and several on-site basins. Drainage is to primarily to the north and to the west, both directly flowing into Vincent Bayou, approximately 100 feet from the property line.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Historical inspections/investigations conducted by the Harris County Public Health and Environmental Services and the Texas Commission on Environmental Quality have shown elevated levels of benzene and chlorinated solvents in some of the waste stored on-site.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

US Oil Recovery opened for business in May 2002 in Pasadena, Texas to handle used oil. In its proprietary plant, US Oil Recovery performed municipal and industrial wastewater pretreatment of Class I and Class II wastewater, characteristically hazardous waste, used oil and oily sludges, and municipal solid waste. The facility is located on approximately 13 acres located north of the City of Pasadena at 400 N. Richey.

2.1.2 Response Actions to Date

On 1 July 2010 Harris County Public Health and Environmental Services (HCPHES) contacted the National Response Center (NRC) at approximately 17:27 to file a report (NRC # 946255) concerning an ongoing release from US Oil Recovery located at 400 N. Richey. The report indicated the company had vessels and tanks containing hazardous waste that were actively leaking and contaminating Vincent Bayou. EPA Phone Duty Officer activated OSC Adam Adams and START to respond to the incident. OSC Adams and START mobilized to the site and conducted an external site walk at 10:00 pm due to limited site access, limited visibility, and flooding.

On 2 July 2010 EPA OSC Adams, TCEQ, HCPHES, and START mobilized at approximately 07:45 to the site and conducted a perimeter site walk. During the initial site visit EPA, TCEQ, HCPHES, and START noted material actively flowing off-site, roll-off boxes labeled as containing hazardous waste and having no tarp cover, and a large break in the perimeter fencing on the northwest side. Based on these observations, EPA OSC Adams requested access to the property from the property owner's legal counsel.

At approximately 12:38 OSC Adams received a signed access agreement from the attorney representing US Oil Recovery granting unconditional access to the property for response action. OSC Adams, TCEQ, and START entered the site to begin the detailed site assessment. During the assessment EPA observed an uncontrolled release of liquids from the retention pond, secondary containments, and roll-off boxes labeled as containing hazardous waste. Based on these visual observations, EPA OSC Adams activated the Emergency and Rapid Response Services (ERRS) contractor to the site to stabilize the site and prevent further migration of site related constituents off-site.

At approximately 1440 the ERRS contractor arrived on-site and began stabilizing the site. Site stabilization activities included the lowering of liquids in critical roll-off boxes, secondary containment areas (areas that were actively overflowing), and pooled areas throughout the site. ERRS also deployed hard and sorbent boom and sorbent pads to minimize the off-site migration of contaminants.

The site received approximately 7 to 12-inches of rain during the day causing Vincé Bayou to flood N. Richey street, minimizing site access and preventing additional resources and equipment to mobilize to the site. At the one point during the day, N. Richey street directly in front of the site access was covered by over 4 feet of water, and Vincent Bayou had raised to within 15 feet of the property fence line.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The Potential Responsible Party is US Oil Recovery, LLC.

2.2 Planning Section

2.2.1 Anticipated Activities

On 3 July 2010 additional supplies and equipment to include frac tanks will be mobilized to the site to further stabilize the site, contain uncontrolled materials, and allow for a more detailed investigation. After the site is stabilized, a detailed investigation will be conducted to determine threats and hazards.

2.2.1.1 Planned Response Activities

ERRS will mobilize frac tanks to allow for bulk storage of contact water contaminated by overflowing rolloff boxes, secondary containments, and containers on-site. Site control will be maintained. Site will be further secured from public access.

2.2.1.2 Next Steps

2.2.2 Issues

Due to the severe rain (approximately 7 plus inches), site progress was slow due to limited access to the site for equipment and resources. Primary objectives during the significant rain event were to contain contamination from off-site migration.

2.3 Logistics Section

2.4 Finance Section

2.5 Safety Officer

2.6 Liaison Officer

2.7 Information Officer

3. Participating Entities**3.1 Unified Command****3.2 Cooperating and Assisting Agencies**

Cooperating and assisting agencies involved in the site are the Texas Commission on Environmental Quality (TCEQ) and Harris County Public Health and Environmental Services (HCPHES).

4. Personnel On Site

Personnel on-site include EPA, START, and ERRS.

Additional personnel on-site at their discretion are representatives from TCEQ and HCPHES.

5. Definition of Terms**6. Additional sources of information****6.1 Internet location of additional information/reports**

Additional information can be obtained from the website www.epaosc.org/USOilRecovery-Pasadena.

6.2 Reporting Schedule

Additional POLREP's will be provided as the response efforts continue.

7. Situational Reference Materials

Additional information can be obtained from the website www.epaosc.org/USOilRecovery-Pasadena.

[web sites](#) | [regional web sites](#) | [profile](#) | [bulletins](#) | [images](#) | [documents](#) | [Pol/Sitreps](#) | [contacts](#) | [links](#) |

[profile](#)[bulletins](#)[images](#)[documents](#)[Pol/Sitreps](#)[contacts](#)[links](#)[login](#)[Pol/Sitreps](#)[Navigate epa osc](#)[All POL/SITREP's for this site](#)

US Oil Recovery
Pasadena, TX - EPA Region VI
POLREP #2
Progress Report

[Printer Friendly Version](#)

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
US Oil Recovery - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VI

Subject: POLREP #2
Progress Report
US Oil Recovery
A6X7
Pasadena, TX
Latitude: 29.7177400 Longitude: -95.2210530

To:
From: Adam Adams, OSC
Date: 7/8/2010
Reporting Period: First 168 Hours (1 week)

1. Introduction

1.1 Background

Site Number:	A6X7	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	CERCLA	Response Type:	Emergency
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	7/1/2010	Start Date:	7/1/2010
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Emergency Response/Emergency Removal Action

1.1.2 Site Description

US Oil Recovery is located on approximately 13 acres of land just north of the City of Pasadena, Texas north of Texas Highway 225. US Oil Recovery performed municipal and industrial wastewater pretreatment of Class I and Class II wastewater, characteristically hazardous waste, used oil and oily sludges, and municipal solid waste.

1.1.2.1 Location

US Oil Recovery is located at 400 N. Richey, Pasadena, Harris County, Texas 77506. US Oil Recovery has an affiliated facility called MCC (USOR#2) that is located at 200 N. Richey, Pasadena, Texas 77506.

1.1.2.2 Description of Threat

Approximately 200 roll-off boxes (most labeled "Hazardous Waste Oct 09" or "Hazardous Waste Dec 09"), approximately 400 plus drums and approximately 100 plus 300 gallon totes are located throughout the site in no particular arrangement. A number of the roll-off boxes are not properly secured and open to the elements. A retention pond is located on the western side of the site and contains unknown chemicals. Additionally, there is a tank battery on the north end of the facility that contains approximately 24 aboveground storage tanks (AST's). The integrity of the AST's and secondary containment are not determined, but signs indicate potential issues. There is a large bioreactor on the northwest corner of the property that has deteriorating walls and a secondary containment approximately 1 foot tall. There are no employees operating the facility, and restriction of access to the public. Any significant rainfall could and would cause an overflow of the retention pond, some rolloff boxes, the tank battery containment, and several on-site basins. Drainage is primarily to the north and to the west, both directly flowing into Vincent Bayou, approximately 100 feet from the property line.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Historical inspections/investigations conducted by the Harris County Public Health and Environmental Services and the Texas Commission on Environmental Quality have shown elevated levels of benzene and chlorinated solvents in some of the waste stored on-site.

2. Current Activities**2.1 Operations Section****2.1.1 Narrative**

US Oil Recovery opened for business in May 2002 in Pasadena, Texas to handle used oil. In its proprietary plant, US Oil Recovery performed municipal and industrial wastewater pretreatment of Class I and Class II wastewater, characteristically hazardous waste, used oil and oily sludges, and municipal solid waste. The facility is located on approximately 13 acres located north of the City of Pasadena at 400 N. Richey. The MCC facility is located on approximately 5 acres located north of the City of Pasadena at 200 N. Richey with a mailing address and business office at 400 N. Richey.

2.1.2 Response Actions to Date

Response efforts were expanded to include both the USOR facility located at 400 N. Richey Street as well as the connected MCC (USOR#2) facility located at 200 N. Richey Street, due to an uncontrolled discharge of hazardous material from two locations at the MCC (USOR#2) facility. To date, a total of 17 Frac tanks, 1 vacuum truck, and 5 pumps are/were in use on the response to contain and maintain site contact water and leaking containment areas. Sampling has been conducted by ERRS contractors to perform waste characterization and profiling for disposal, and START contractors to assess site runoff and containment areas. Analytical results are expected the week of 07/14/10.

START performed tank gauging on the tank battery located on the north end of USOR site in Level C PPE. Based on initial observations, the tanks are full of a mixture of oil and water. An inventory of the 225 roll-off boxes located at USOR was conducted by START for inventory control and verification of the integrity of the containers. Uncovered roll-off boxes have been tarped and secured from future overflow. Drums, totes, and containers on-site are being assessed, inventoried, and segregated to ensure all containers are stable and not staged in an unsafe manner.

The fence located on the northwest side of the USOR site was repaired, securing the site from public access. No trespassing signs were posted at both facilities and each facility was secured with new locks.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The Potential Responsible Parties are US Oil Recovery, LLC and MCC (USOR#2), both with the same owner.

2.2 Planning Section**2.2.1 Anticipated Activities****2.2.1.1 Planned Response Activities**

Continue maintenance operations on containment areas located at USOR and MCC. Continue to assess, inventory and segregate drums, totes, and containers on-site to ensure all containers are stable and not staged in an unsafe manner.

2.3 Logistics Section**2.4 Finance Section****2.5 Safety Officer****2.6 Liaison Officer****2.7 Information Officer****3. Participating Entities****3.1 Unified Command****3.2 Cooperating and Assisting Agencies**

Cooperating and assisting agencies involved in the site are the Texas Commission on Environmental Quality (TCEQ) and Harris County Public Health and Environmental Services (HCPHES).

4. Personnel On Site

Personnel on-site include EPA, START, and ERRS.

Additional personnel on-site at their discretion are representatives from TCEQ and HCPHES.

5. Definition of Terms**6. Additional sources of information****6.1 Internet location of additional information/reports**

Additional information can be obtained from the website www.epaosc.org/USOilRecovery-Pasadena.

6.2 Reporting Schedule

Additional POLREP's will be provided as the response efforts continue.

7. Situational Reference Materials

Additional information can be obtained from the website www.epaosc.org/USOilRecovery-Pasadena.

| [web sites](#) | [regional web sites](#) | [profile](#) | [bulletins](#) | [images](#) | [documents](#) | [Pol/Sitreps](#) | [contacts](#) | [links](#) |

[profile](#)[bulletins](#)[images](#)[documents](#)[Pol/Sitreps](#)[contacts](#)[links](#)[login](#) [Pol/Sitreps](#)[Navigate epa osc](#)

United States Environmental Protection Agency

[All POL/SITREP's for this site](#)

US Oil Recovery
Pasadena, TX - EPA Region VI
POLREP #3
Progress Report

[Printer Friendly Version](#)

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
US Oil Recovery - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VI

Subject: POLREP #3
Progress Report
US Oil Recovery
A6X7
Pasadena, TX
Latitude: 29.7177400 Longitude: -95.2210530

To:
From: Adam Adams, OSC
Date: 7/15/2010
Reporting Period: Week 2

1. Introduction

1.1 Background

Site Number:	A6X7	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	CERCLA	Response Type:	Emergency
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	7/1/2010	Start Date:	7/1/2010
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Emergency Response/Emergency Removal Action

1.1.2 Site Description

US Oil Recovery is located on approximately 13 acres of land just north of the City of Pasadena, Texas north of Texas Highway 225. US Oil Recovery performed municipal and industrial wastewater pretreatment of Class I and Class II wastewater, characteristically hazardous waste, used oil and oily sludges, and municipal solid waste.

1.1.2.1 Location

US Oil Recovery is located at 400 N. Richey, Pasadena, Harris County, Texas 77506. US Oil Recovery has an affiliated facility called MCC (USOR#2) that is located at 200 N. Richey, Pasadena, Texas 77506.

1.1.2.2 Description of Threat

Approximately 225 roll-off boxes (most labeled "Hazardous Waste Oct 09" or "Hazardous Waste Dec 09"), approximately 600 plus drums and approximately 100 plus 300 gallon totes are located throughout the site in no particular arrangement. A number of the roll-off boxes were not properly secured (i.e. missing/damaged tarps, poles, or bows) and open to the elements. A retention pond is located on the western side of the site and contains unknown chemicals. Additionally, there is a tank battery on the north end of the facility that contains approximately 24 aboveground storage tanks (AST's). The integrity of the AST's and secondary containment are not determined, but signs indicate potential issues in the future. There is a large bioreactor on the northwest corner of the property that has deteriorating walls and a secondary containment approximately 1 foot above ground surface. There are no employees operating the facility nor any public access restriction. Any significant rainfall could and would cause an overflow of the retention pond, some rolloff boxes, the tank battery containment, and several on-site basins. Drainage is primarily to the north and to the west, both directly flowing into Vincent Bayou, approximately 100 feet from the property line.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Historical inspections/investigations conducted by the Harris County Public Health and Environmental Services and the Texas Commission on Environmental Quality have shown elevated levels of benzene and chlorinated solvents in some of the waste stored on-site.

Of the drums staged in the facility warehouse, a large portion are not in transportable condition. Most of the drums' contents are not consistent with the drum labels (i.e. drums with "NonHaz" labels containing flammables or corrosives). Some drums are leaking, and some are not sealed with the appropriate lids, bungs, or drum rings). Some corrosives are stored in metal drums, as well as acids and bases stored side by side.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

US Oil Recovery opened for business in May 2002 in Pasadena, Texas to handle used oil. In its proprietary plant, US Oil Recovery performed municipal and industrial wastewater pretreatment of Class I and Class II wastewater, characteristically hazardous waste, used oil and oily sludges, and municipal solid waste. The facility is located on approximately 13 acres located north of the City of Pasadena at 400 N. Richey. The MCC facility is located on approximately 5 acres located north of the City of Pasadena at 200 N. Richey with a mailing address and business office at 400 N. Richey.

2.1.2 Response Actions to Date

Response efforts continue to include both the USOR facility located at 400 N. Richey Street as well as the connected MCC (USOR#2) facility located at 200 N. Richey Street. To date, a total of 15 FRAC tanks and 4 pumps are in use to contain and maintain site contact water and leaking containment areas. Two FRAC tanks and the vacuum truck were demobilized. ERRS and START continued to collect samples for waste characterization and profiling for disposal and assessment of site runoff and containment areas. Preliminary analytical results for assessment samples collected at USOR and MCC indicated levels of BTEX, acetone, and phenol among other organic constituents. Analytical results for waste characterization of the contents in the FRAC tanks from NTF, STF, and parking lot at USOR and the Z-Tank at MCC indicated low pH levels. A generator profile was submitted to Intergulf for disposal. ERRS coordinated transport and disposal for the week of 19 July.

Drums, totes, and containers on-site continued being assessed, inventoried, and segregated to ensure all containers are stable and not staged in an unsafe manner according to contents: flammable/combustible, corrosive-acidic, corrosive-basic, and non-hazardous material/universal waste. To date a total of 409 drums have been inventoried and 143 assessed.

Of the 225 roll-off boxes staged throughout the site, 64 needed some mechanism of address to eliminate the threat of overflow and migration off site. Issues resolved include leaks, tarps with holes, missing tarps, missing or damaged pipes, and missing or damaged bows, all of which can result in an overflowing roll-off box. As of July 15, all 225 roll-off boxes are securely covered and not posing an imminent threat to human health and the environment from the rolloff boxes being rained on and overflowing.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The Potential Responsible Parties at this time are US Oil Recovery, LLC and MCC (USOR#2), both with the same owner.

2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities

Continue maintenance operations on containment areas located at USOR and MCC. Continue to assess, inventory and segregate drums, totes, and containers on-site to ensure all containers are segregated correctly, stable and not staged in an unsafe manner. Continue to coordinate the transport and disposal of the accumulated and contaminated runoff and stormwater.

2.3 Logistics Section

2.4 Finance Section

2.5 Safety Officer

2.6 Liaison Officer

2.7 Information Officer

3. Participating Entities

3.1 Unified Command

3.2 Cooperating and Assisting Agencies

Cooperating and assisting agencies involved in the site are the Texas Commission on Environmental

Quality (TCEQ) and Harris County Public Health and Environmental Services (HCPHES).

4. Personnel On Site

Personnel on-site include EPA, START, and ERRS.

Additional personnel on-site at their discretion are representatives from TCEQ and HCPHES.

5. Definition of Terms

6. Additional sources of information

6.1 Internet location of additional information/reports

Additional information can be obtained from the website www.epaosc.org/USOilRecovery-Pasadena.

6.2 Reporting Schedule

Additional POLREP's will be provided as the response efforts continue.

7. Situational Reference Materials

Additional information can be obtained from the website www.epaosc.org/USOilRecovery-Pasadena.

[web sites](#) | [regional web sites](#) | [profile](#) | [bulletins](#) | [images](#) | [documents](#) | [Pol/Sitreps](#) | [contacts](#) | [links](#) |

[profile](#)[bulletins](#)[images](#)[documents](#)[Pol/Sitreps](#)[contacts](#)[links](#)[login](#)[Pol/Sitreps](#)[Navigate epa osc](#)[All POL/SITREP's for this site](#)

US Oil Recovery
Pasadena, TX - EPA Region VI
POLREP #4
Progress Report

[Printer Friendly Version](#)

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
US Oil Recovery - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VI

Subject: POLREP #4
Progress Report
US Oil Recovery
A6X7
Pasadena, TX
Latitude: 29.7177400 Longitude: -95.2210530

To:
From: Adam Adams, OSC
Date: 7/24/2010
Reporting Period:

1. Introduction

1.1 Background

Site Number:	A6X7	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	CERCLA	Response Type:	Emergency
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	7/1/2010	Start Date:	7/1/2010
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Emergency Response/Emergency Removal Action

1.1.2 Site Description

US Oil Recovery is located on approximately 13 acres of land just north of the City of Pasadena, Texas north of Texas Highway 225. US Oil Recovery performed municipal and industrial wastewater pretreatment of Class I and Class II wastewater, characteristically hazardous waste, used oil and oily sludges, and municipal solid waste.

1.1.2.1 Location

US Oil Recovery is located at 400 N. Richey, Pasadena, Harris County, Texas 77506. US Oil Recovery has an affiliated facility called MCC (USOR#2) that is located at 200 N. Richey, Pasadena, Texas 77506.

1.1.2.2 Description of Threat

Approximately 225 roll-off boxes (most labeled "Hazardous Waste Oct 09" or "Hazardous Waste Dec 09"), approximately 600 plus drums and approximately 100 plus 300 gallon totes are located throughout the site in no particular arrangement. A number of the roll-off boxes were not properly secured (i.e. missing/damaged tarps, poles, or bows) and open to the elements. A retention pond is located on the western side of the site and contains unknown chemicals. Additionally, there is a tank battery on the north end of the facility that contains approximately 24 aboveground storage tanks (AST's). The integrity of the AST's and secondary containment are not determined, but signs indicate potential issues in the future. There is a large bioreactor on the northwest corner of the property that has deteriorating walls and a secondary containment approximately 1 foot above ground surface. There are no employees operating the facility nor any public access restriction. Any significant rainfall could and would cause an overflow of the retention pond, some rolloff boxes, the tank battery containment, and several on-site basins. Drainage is primarily to the north and to the west, both directly flowing into Vincent Bayou, approximately 100 feet from the property line.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Historical inspections/investigations conducted by the Harris County Public Health and Environmental Services and the Texas Commission on Environmental Quality have shown elevated levels of benzene and chlorinated solvents in some of the waste stored on-site.

Of the drums staged in the facility warehouse, a large portion are not in transportable condition. Most of the drums' contents are not consistent with the drum labels (i.e. drums with "NonHaz" labels containing flammables or corrosives). Some drums are leaking, and some are not sealed with the appropriate lids, bungs, or drum rings). Some corrosives are stored in metal drums, as well as acids and bases stored side by side.

The contents of the totes staged in the warehouse are not consistent with the tote labels. Most of the totes are marked with computer generated "Universal Waste" labels and contain flammables and corrosives.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

US Oil Recovery opened for business in May 2002 in Pasadena, Texas to handle used oil. In its proprietary plant, US Oil Recovery performed municipal and industrial wastewater pretreatment of Class I and Class II wastewater, characteristically hazardous waste, used oil and oily sludges, and municipal solid waste. The facility is located on approximately 13 acres located north of the City of Pasadena at 400 N. Richey. The MCC facility is located on approximately 5 acres located north of the City of Pasadena at 200 N. Richey with a mailing address and business office at 400 N. Richey.

2.1.2 Response Actions to Date

Response efforts continue to include both the USOR facility located at 400 N. Richey Street as well as the connected MCC (USOR#2) facility located at 200 N. Richey Street. During the week of 19 July, on-site security was continued at USOR and MCC. The contents in the FRAC tanks from NTF, STF, and parking lot at USOR and the Z-Tank at MCC were transported off-site to Intergulf for proper disposal. This resulted in the demobilization of 13 FRAC tanks from both sites.

Drums, totes, and containers on-site continued being assessed, inventoried, and segregated. Secondary containment areas were built to ensure all containers are stable and not staged in an unsafe manner according to contents: flammable/combustible, corrosive-acidic, corrosive-basic, and non-hazardous material/universal waste. To date a total of 765 drums have been inventoried and assessed while 132 totes have been inventoried and 53 have been assessed. Additionally a total of 26 poly drums and 23 steel drums were over-packed. Documentation of site activities continues through written and photographic means.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The Potential Responsible Parties at this time are US Oil Recovery, LLC and MCC (USOR#2), both with the same owner.

2.2 Planning Section

2.2.1 Anticipated Activities

2.2.1.1 Planned Response Activities

Continue maintenance operations on containment areas located at USOR and MCC. Continue to assess, inventory and segregate drums, totes, and containers on-site to ensure all containers are segregated correctly, stable and not staged in an unsafe manner. Continue to coordinate the transport and disposal of the accumulated and contaminated runoff and stormwater.

2.3 Logistics Section

2.4 Finance Section

2.5 Safety Officer

2.6 Liaison Officer

2.7 Information Officer

3. Participating Entities**3.1 Unified Command****3.2 Cooperating and Assisting Agencies**

Cooperating and assisting agencies involved in the site are the Texas Commission on Environmental Quality (TCEQ) and Harris County Public Health and Environmental Services (HCPHES).

4. Personnel On Site

Personnel on-site include EPA, START, and ERRS.

Additional personnel on-site at their discretion are representatives from TCEQ and HCPHES.

5. Definition of Terms**6. Additional sources of information****6.1 Internet location of additional information/reports****6.2 Reporting Schedule****7. Situational Reference Materials**

[web sites](#) | [regional web sites](#) | [profile](#) | [bulletins](#) | [images](#) | [documents](#) | [Pol/Sitreps](#) | [contacts](#) | [links](#) |



profile

bulletins

images

documents

Pol/Sitreps

contacts

links

login **Pol/Sitreps**

Navigate epa osc


[All POL/SITREP's for this site](#)

US Oil Recovery
Pasadena, TX - EPA Region VI
POLREP #5
Final

[Printer Friendly Version](#)

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
US Oil Recovery - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VI

Subject: POLREP #5
Final
US Oil Recovery
A6X7
Pasadena, TX
Latitude: 29.7177400 Longitude: -95.2210530

To:
From: Adam Adams, OSC
Date: 8/5/2010
Reporting Period: 07/01-08/02/2010

1. Introduction

1.1 Background

Site Number:	A6X7	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	CERCLA	Response Type:	Emergency
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	7/1/2010	Start Date:	7/1/2010
Demob Date:	8/2/2010	Completion Date:	8/2/2010
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Emergency Response/Emergency Removal Action

1.1.2 Site Description

US Oil Recovery is located on approximately 13 acres of land just north of the City of Pasadena, Texas north of Texas Highway 225. US Oil Recovery performed municipal and industrial wastewater pretreatment of Class I and Class II wastewater, characteristically hazardous waste, used oil and oily sludges, and municipal solid waste.

1.1.2.1 Location

US Oil Recovery is located at 400 N. Richey, Pasadena, Harris County, Texas 77506. US Oil Recovery has an affiliated facility called MCC (USOR#2) that is located at 200 N. Richey, Pasadena, Texas 77506.

1.1.2.2 Description of Threat

225 - 25 cubic yard roll-off boxes (most labeled "Hazardous Waste Oct 09" or "Hazardous Waste Dec 09"), 797 - 55 gallon drums and 212 - 300 to 400 gallon totes are located throughout the site in no particular arrangement. A number of the roll-off boxes were not properly secured (i.e. missing/damaged tarps, poles, or bows) and open to the elements. A retention pond is located on the western side of the site and contains unknown chemicals. Additionally, there is a tank battery on the north end of the facility that contains approximately 24 aboveground storage tanks (AST's). The integrity of the AST's and secondary containments are not determined, but signs indicate potential issues in the future. There is a large bioreactor on the northwest corner of the property that has deteriorating walls and a secondary containment approximately 1 foot above ground surface. There were no employees operating the facility nor any public access restriction at the time of the response. Prior to any response efforts, any significant rainfall could and would cause an overflow of the retention pond, some rolloff boxes, the tank battery containments, and several on-site basins. Drainage is primarily to the north and to the west, both directly flowing into Vincent Bayou, approximately 100 feet from the property line.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Historical inspections/investigations conducted by the Harris County Public Health and Environmental Services and the Texas Commission on Environmental Quality have shown elevated levels of benzene and chlorinated solvents in some of the waste stored on-site.

Of the drums staged in the facility warehouse, a large portion are not in transportable condition. Most of the drums' contents were not consistent with the drum labels (i.e. drums with "NonHaz" labels containing flammables or corrosives). Some drums were leaking, and some were not sealed with the appropriate lids, bungs, or drum rings). Some corrosives were stored in metal drums, as well as acids and bases stored side by side.

The contents of the totes staged in the warehouse were not consistent with the tote labels. Most of the totes were marked with computer generated "Universal Waste" labels and contain flammables and corrosives.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

US Oil Recovery opened for business in May 2002 in Pasadena, Texas to handle used oil. In its proprietary plant, US Oil Recovery performed municipal and industrial wastewater pretreatment of Class I and Class II wastewater, characteristically hazardous waste, used oil and oily sludges, and municipal solid waste. The facility is located on approximately 13 acres located north of the City of Pasadena at 400 N. Richey. The MCC facility is located on approximately 5 acres located north of the City of Pasadena at 200 N. Richey with a mailing address and business office at 400 N. Richey.

2.1.2 Response Actions to Date

During the week of 26 July, site stabilization efforts continued to include both the USOR facility as well as the connected MCC (USOR#2) facility with on-site security continued at both sites. The contents in the secondary containment of the basic and acidic tanks were pumped into separate truck bays due to acute structural damage of the secondary containment walls. Neutralization of the corrosives from the two secondary containments, from the filter press area, and FRAC tank A-1331 was conducted for disposal. The remaining 40,000 gallons of neutralized non-hazardous material were transported off-site to Intergulf for disposal on 29 and 30 July.

The remaining drums and totes located on-site were assessed, inventoried, segregated, and staged in secondary containment areas located in the warehouse to ensure the containers were stable and not staged in an unsafe manner. Placards and paint markings were placed at each containment area according to drum and tote content field hazardous characterization analyses: red-flammable/combustible, white-corrosive/acidic, yellow-corrosive/basic, and green-non-hazardous material/universal waste.

The field hazard characterization analyses were conducted to ascertain the characteristic hazards of the containers (i.e. flammability, corrosivity) for appropriate storage and compatibility; however, the field hazard characterization analyses were not conducted to determine the presence or absence of hazardous compounds. The drums and totes marked with the green paint and are located in the placarded "Non-hazardous material" staging areas should not be assumed to be free of hazardous compounds, but should be assessed in more detail prior to disposal.

The containment areas were set up accordingly:

Containment A = Hazardous-Flammable/Combustible
Containment B = Non-Hazardous Material/Universal Waste
Containment C-1 = Hazardous-Flammable/Combustible
Containment C-2 = Non-Hazardous Material/Universal Waste
Containment D-1 = Empty Drums
Containment D-2 = Hazardous-Flammable/Combustible
Containment E-1 = Hazardous-Corrosive/Acidic
Containment E-2 = Non-Hazardous Material/Universal Waste
Containment E-3 = Hazardous-Corrosive/Acidic
Containment F-1 = Hazardous-Corrosive/Basic
Containment F-2 = Non-Hazardous Material/Universal Waste
High Hazard Containment A = Potential Oxidizers
High Hazard Containment B = H₂S

Tote Staging Area = Each row of totes is separated into one of the four designated classifications (Hazardous-Flammable/Combustible, Non-Hazardous Material/Universal Waste, Hazardous-Corrosive/Acidic, and Hazardous-Corrosive/Basic). No rows of incompatibles are staged next to each other.

The site was stabilized on 31 July and final written and photographic documentation of the site was conducted. During the response, a total of 225 roll-off boxes were secured; 797 drums and 212 totes were assessed, inventoried and segregated; and 392,000 gallons of non-hazardous material were transported off-site for proper disposal.

Demobilization of personnel and equipment was completed on August 2.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The Potential Responsible Parties at this time are US Oil Recovery, LLC and MCC (USOR#2), both with the same owner.

2.2 Planning Section

2.2.1 Anticipated Activities

No additional EPA response activities are planned at this time.

2.3 Logistics Section

2.4 Finance Section

2.5 Safety Officer

2.6 Liaison Officer

2.7 Information Officer

3. Participating Entities

3.1 Unified Command

3.2 Cooperating and Assisting Agencies

Cooperating and assisting agencies involved in the site are the Texas Commission on Environmental Quality (TCEQ) and Harris County Public Health and Environmental Services (HCPHES).

4. Personnel On Site

Personnel on-site include EPA, START, and ERRS.

Additional personnel on-site at their discretion are representatives from TCEQ and HCPHES.

5. Definition of Terms

6. Additional sources of information

6.1 Internet location of additional information/reports

Additional information can be obtained at www.epaosc.org/usoilrecovery-pasadena.

6.2 Reporting Schedule

7. Situational Reference Materials

Additional information can be obtained at www.epaosc.org/usoilrecovery-pasadena.

[web sites](#) | [regional web sites](#) | [profile](#) | [bulletins](#) | [images](#) | [documents](#) | [Pol/Sitreps](#) | [contacts](#) | [links](#) |


[profile](#)
[bulletins](#)
[images](#)
[documents](#)
[Pol/Sitreps](#)
[contacts](#)
[links](#)
[login Pol/Sitreps](#)
[Navigate epa osc](#)

[All POL/SITREP's for this site](#)

US Oil Recovery
Pasadena, TX - EPA Region VI
POLREP #6
Initial Report- Incident 2

[Printer Friendly Version](#)

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
US Oil Recovery - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VI

Subject: POLREP #6
Initial Report- Incident 2
US Oil Recovery
A6X7
Pasadena, TX
Latitude: 29.7177400 Longitude: -95.2210530

To:
From: Adam Adams, OSC
Date: 11/12/2010
Reporting Period: 11/08/2010 - 11/12/2010

1. Introduction

1.1 Background

Site Number:	A6X7	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	CERCLA	Response Type:	Emergency
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	11/8/2010	Start Date:	11/8/2010
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Emergency Response/Emergency Removal Action

1.1.2 Site Description

US Oil Recovery is located on approximately 13 acres of land just north of the City of Pasadena, Texas north of Texas Highway 225. US Oil Recovery performed municipal and industrial wastewater pretreatment of Class I and Class II wastewater, characteristically hazardous waste, used oil and oily sludges, and municipal solid waste.

1.1.2.1 Location

US Oil Recovery is located at 400 N. Richey, Pasadena, Harris County, Texas 77506.

1.1.2.2 Description of Threat

This and future POLREP's document a separate incident from the response conducted in July 2010.

HCPHES notified the National Response Center (NRC Report No.959001) to report a release of an unknown waste water from an unknown source at the facility impacting Vince Bayou, approximately 100 feet from the property line. Drainage is primarily to the north and to the west, both directly flowing into Vince Bayou. The NRC report also stated there are various hazardous chemicals at the facility. NRC notified the EPA. Upon notification, EPA contacted the local TCEQ representative for confirmation. The TCEQ monitored the facility over the weekend and requested EPA assistance on November 8, 2010. The EPA OSC mobilized to the site and re-activated START-3 and ERRS contractors to be on site on 11/09/2010.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Due to heavy rains in the area, available freeboard located in the containment areas had

become compromised and the contents were overflowing. Initial assessment included the north and south containment areas, truck bay areas, and the retention pond. Several corrosive caustic drums and totes in the warehouse were leaking contents thereby creating a safety concern.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

US Oil Recovery opened for business in May 2002 in Pasadena, Texas to handle used oil. In its proprietary plant, US Oil Recovery performed municipal and industrial wastewater pretreatment of Class I and Class II wastewater, characteristically hazardous waste, used oil and oily sludges, and municipal solid waste. The facility is located on approximately 13 acres located north of the City of Pasadena at 400 N. Richey.

2.1.2 Response Actions to Date

On 04 November 2010, HCPHES notified the NRC (NRC#959001) of a release of waste water from an unknown source at the facility that was threatening Vince Bayou. Upon notification by the NRC and request from TCEQ, EPA activated START-3 and ERRS contractors on 11/08/10 to respond to the incident.

During this reporting period ERRS used trash-pumps to control liquid runoff off-site, field tested pH of non-hazardous liquids and began transportation of non-hazardous liquid waste off-site for disposal. Crews commenced with neutralization of on-site corrosive liquids overflowing from secondary containments. Drums and totes located in the warehouse were assessed for stability, leaking containers were secured and spilled contents were recovered.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The Potential Responsible Party at this time is US Oil Recovery, LLC.

2.2 Planning Section

2.2.1 Anticipated Activities

EPA, START-3 and ERRS will continue to stabilize on-site containers and recover liquids currently contained in the secondary containment of the on-site above ground storage tanks. The liquid recovered from the secondary containments will continue to be transported off-site by vacuum trailer to the Intergulf recycling facility in Pasadena, TX for fuels blending. Strong corrosive liquids and sludge will continue to be treated with caustic material to raise the pH.

2.3 Logistics Section

2.4 Finance Section

2.5 Safety Officer

2.6 Liaison Officer

2.7 Information Officer

3. Participating Entities

3.1 Unified Command

3.2 Cooperating and Assisting Agencies

Texas Commission on Environmental Quality (TCEQ) and Harris County Public Health and Environmental Services (HCPHES).

4. Personnel On Site

Personnel on-site include EPA, START-3, and ERRS.

Additional personnel on-site at their discretion are representatives from TCEQ and HCPHES.

5. Definition of Terms

6. Additional sources of information

6.1 Internet location of additional information/reports

Additional information can be obtained at www.epaosc.org/usoilrecovery-pasadena.

6.2 Reporting Schedule

7. Situational Reference Materials

Additional information can be obtained at www.epaosc.org/usoilrecovery-pasadena.

[profile](#)[bulletins](#)[images](#)[documents](#)[Pol/Sitreps](#)[contacts](#)[links](#)[login](#) [Pol/Sitreps](#)[Navigate epa osc](#)[All POL/SITREP's for this site](#)

US Oil Recovery
Pasadena, TX - EPA Region VI
POLREP #7
Progress Report - Incident #2

[Printer Friendly Version](#)

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
US Oil Recovery - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VI

Subject: POLREP #7
Progress Report - Incident #2
US Oil Recovery
A6X7
Pasadena, TX
Latitude: 29.7177400 Longitude: -95.2210530

To:
From: Adam Adams, OSC
Date: 11/18/2010
Reporting Period: 11/13/2010 - 11/24/2010

1. Introduction

1.1 Background

Site Number:	A6X7	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	CERCLA	Response Type:	Emergency
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	11/8/2010	Start Date:	11/9/2010
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Emergency Response/Emergency Removal Action

1.1.2 Site Description

US Oil Recovery is located on approximately 13 acres of land just north of the City of Pasadena, Texas north of Texas Highway 225. US Oil Recovery performed municipal and industrial wastewater pretreatment of Class I and Class II wastewater, characteristically hazardous waste, used oil and oily sludges, and municipal solid waste.

1.1.2.1 Location

US Oil Recovery is located at 400 N. Richey, Pasadena, Harris County, Texas 77506.

1.1.2.2 Description of Threat

Separate incident from the response conducted in July 2010. HCPHES notified the National Response Center (NRC Report No.959001) to report a release of waste water from an unknown source at the facility. Drainage is primarily to the north and to the west, both directly flowing into Vince Bayou, approximately 100 feet from the property line. NRC notified the EPA. Upon notification an EPA OSC and START-3 mobilized to the site to conduct a Tier 1 response on 11/08/2010.

Materials at the facility include solids, liquids, and sludges with hazardous characteristics that include flammables and corrosives. Assessment sampling from the July incident also indicated acetone, benzene, toluene, ethyl benzene, and xylene in some of the facility containments. The north and south tank farm secondary containments and several sumps and bays at the facility have historically overflowed directly into the parking lot, which overflows directly into Vince Bayou.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Due to heavy rains in the area, available freeboard located in the containment areas had become compromised and the contents were overflowing into the parking lot. Initial assessment included the north and south tank farm secondary containment areas, sumps, bays, and a retention pond. Some characteristically hazardous drums and totes in the warehouse were leaking contents, thereby creating an additional safety concern.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

US Oil Recovery opened for business in May 2002 in Pasadena, Texas to handle used oil. In its proprietary plant, US Oil Recovery performed municipal and industrial wastewater pretreatment of Class I and Class II wastewater, characteristically hazardous waste, used oil and oily sludges, and municipal solid waste. The facility is located on approximately 13 acres located north of the City of Pasadena at 400 N. Richey.

2.1.2 Response Actions to Date

During this operational period, the EPA and their contractors continued emergency removal actions at the US Oil Recovery facility located at 400 North Richey, Pasadena, TX. EPA Emergency and Rapid Response Service (ERRS) personnel continued recovery of liquids from the north and south tank farms. Hydrogen sulfide was found to be present at significant levels in the liquids recovered from the above ground storage tanks.

EPA and START collected three waste samples from the sludge. One sample was collected from the north tank farm secondary containment; one sample was collected from the south tank farm secondary containment; and one sample was collected from the acidic sludge contained in three sumps. Analytical data reported will be used to implement the most cost effective method for disposal.

ERRS removed the acidic sludge from the three sumps (34, 35, and 36) and temporarily stored the material securely at the facility pending disposal approvals.

At the end of this operational period, approximately 340,000 gallons of non-hazardous oily liquid waste has been transported off-site for fuels blending / recycling at the Intergulf disposal facility in Pasadena, TX. This material was from the above ground storage tanks; north and south secondary containments; sumps 34, 35, and 36; the parking lot; and bays 45 and 48.

Additional measures taken during this reporting period include securing the site and implementing engineering controls to prevent access to sumps 34, 35, and 36 during the Thanksgiving break.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The Potential Responsible Party at this time is US Oil Recovery, LLC.

2.2 Planning Section

2.2.1 Anticipated Activities

EPA, START-3 and ERRS will continue after the Thanksgiving break to further stabilize the facility. This will include disposal of hazardous and non-hazardous sludges from the containments, disposal / recycling of recovered oily liquids from the containments, container re-address, and site security.

2.3 Logistics Section

2.4 Finance Section

2.5 Safety Officer

No incidents or injuries occurred during or prior to this operational period on this response.

Hydrogen sulfide was found at significant levels in the north tank farm during the recovery operation. Additional Hydrogen sulfide personal dosimeters were utilized to further protect site personnel.

2.6 Liaison Officer

2.7 Information Officer

Additional information can be obtained at www.epaosc.org/usoilrecovery-pasadena.

3. Participating Entities

3.1 Unified Command

3.2 Cooperating and Assisting Agencies

Texas Commission on Environmental Quality (TCEQ).
Harris County Public Health and Environmental Services (HCPHES).

4. Personnel On Site

Personnel on-site include EPA, START-3, and ERRS.

Additional personnel on-site at their discretion are representatives from TCEQ and HCPHES.

5. Definition of Terms




6. Additional sources of information**6.1 Internet location of additional information/reports**

Additional information can be obtained at www.epaosc.org/usoilrecovery-pasadena.

6.2 Reporting Schedule**7. Situational Reference Materials**

Additional information can be obtained at www.epaosc.org/usoilrecovery-pasadena.

[web sites](#) | [regional web sites](#) | [profile](#) | [bulletins](#) | [images](#) | [documents](#) | [Pol/Sitreps](#) | [contacts](#) | [links](#) |

 On-Scene Coordinator	<div style="display: flex; justify-content: space-between;">United States Environmental Protection Agency</div> <div style="display: flex; justify-content: space-between; font-size: small;">profilebulletinsimagesdocumentsPol/SitrepscontactslinkslogoutPol/SitrepsNavigate epa osc</div>		
<div style="display: flex; justify-content: center; gap: 10px;"><input type="button" value="New"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/> <input type="button" value="Email"/></div>			
<div style="display: flex; justify-content: space-between;">All POL/SITREP's for this siteUS Oil Recovery Pasadena, TX - EPA Region VI POLREP #8 Final Report - Incident #2Printer Friendly Version</div> <div style="text-align: center; padding: 20px 0;"><p>U.S. ENVIRONMENTAL PROTECTION AGENCY POLLUTION/SITUATION REPORT US Oil Recovery - Removal Polrep</p><p>UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Region VI</p></div> <div style="display: flex;"><div style="width: 15%;">Subject:</div><div style="width: 85%;"><p>POLREP #8 Final Report - Incident #2 US Oil Recovery A6X7 Pasadena, TX Latitude: 29.7177400 Longitude: -95.2210530</p></div></div> <div style="display: flex;"><div style="width: 15%;">To:</div><div style="width: 85%;"><p>Dana Tullis, U.S. EPA HQ Ragan Broyles, Superfund Division Jeff Lewellin, TCEQ</p></div></div> <div style="display: flex;"><div style="width: 15%;">From:</div><div style="width: 85%;"><p>Adam Adams, OSC</p></div></div> <div style="display: flex;"><div style="width: 15%;">Date:</div><div style="width: 85%;"><p>1/27/2011</p></div></div> <div style="display: flex;"><div style="width: 15%;">Reporting Period:</div><div style="width: 85%;"><p>11/29/2010 - 01/07/2011</p></div></div> <div style="padding-top: 20px;">1. Introduction:<div style="padding-left: 20px;">1.1 Background<table style="width: 100%; border: none;"><tr><td style="width: 50%; vertical-align: top;">Site Number: A6X7 D.O. Number: Response Authority: CERCLA Response Lead: EPA NPL Status: Non-NPL Mobilization Date: 11/8/2010 Demob Date: 12/20/2010 CERCLIS ID: TXR000051540 (USOR facility) ERNS No.: FPN#:</td><td style="width: 50%; vertical-align: top;">Contract Number: Action Memo Date: Response Type: Emergency Incident Category: Removal Action Operable Unit: Start Date: 11/9/2010 Completion Date: 1/7/2011 RCRIS ID: State Notification: Reimbursable Account #:</td></tr></table></div></div> <div style="padding-left: 20px;">1.1.1 Incident Category<p>Emergency Response/Emergency Removal Action</p></div> <div style="padding-left: 20px;">1.1.2 Site Description<p>US Oil Recovery is located on approximately 13 acres of land just north of the City of Pasadena, Texas north of Texas Highway 225. US Oil Recovery performed municipal and industrial wastewater pretreatment of Class I and Class II wastewater, characteristically hazardous waste, used oil and oily sludges, and municipal solid waste.</p></div> <div style="padding-left: 20px;">1.1.2.1 Location<p>US Oil Recovery is located at 400 N. Richey, Pasadena, Harris County, Texas 77506.</p></div> <div style="padding-left: 20px;">1.1.2.2 Description of Threat<p>Separate incident from the response conducted in July 2010. HCPHES notified the National Response Center (NRC Report No.959001) to report a release of waste water from an unknown source at the facility. Drainage is primarily to the north and to the west, both directly flowing into Vince Bayou, approximately 100 feet from the property line. NRC notified the EPA. Upon notification an EPA OSC and START-3 mobilized to the site to conduct a Tier 1 response on 11/08/2010.</p></div>		Site Number: A6X7 D.O. Number: Response Authority: CERCLA Response Lead: EPA NPL Status: Non-NPL Mobilization Date: 11/8/2010 Demob Date: 12/20/2010 CERCLIS ID: TXR000051540 (USOR facility) ERNS No.: FPN#:	Contract Number: Action Memo Date: Response Type: Emergency Incident Category: Removal Action Operable Unit: Start Date: 11/9/2010 Completion Date: 1/7/2011 RCRIS ID: State Notification: Reimbursable Account #:
Site Number: A6X7 D.O. Number: Response Authority: CERCLA Response Lead: EPA NPL Status: Non-NPL Mobilization Date: 11/8/2010 Demob Date: 12/20/2010 CERCLIS ID: TXR000051540 (USOR facility) ERNS No.: FPN#:	Contract Number: Action Memo Date: Response Type: Emergency Incident Category: Removal Action Operable Unit: Start Date: 11/9/2010 Completion Date: 1/7/2011 RCRIS ID: State Notification: Reimbursable Account #:		

Materials at the facility include solids, liquids, and sludges with hazardous characteristics that include flammables and corrosives. Assessment sampling from the July incident also indicated acetone, benzene, toluene, ethyl benzene, and xylene in some of the facility containments. The north and south tank farm secondary containments and several sumps and bays at the facility have historically overflowed directly into the parking lot, which overflows directly into Vince Bayou.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Due to heavy rains in the area, available freeboard located in the containment areas had become compromised and the contents were overflowing into the parking lot. Initial assessment included the north and south tank farm secondary containment areas, sumps, bays, and a retention pond. Some characteristically hazardous drums and totes in the warehouse were leaking contents, thereby creating an additional safety concern.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

US Oil Recovery opened for business in May 2002 in Pasadena, Texas to handle used oil. In its proprietary plant, US Oil Recovery performed municipal and industrial wastewater pretreatment of Class I and Class II wastewater, characteristically hazardous waste, used oil and oily sludges, and municipal solid waste. The facility is located on approximately 13 acres located north of the City of Pasadena at 400 N. Richey.

2.1.2 Response Actions to Date

During this operational period the EPA and their contractors continued emergency removal actions at the US Oil Recovery facility located at 400 North Richey, Pasadena, TX. EPA Emergency and Rapid Response Service (ERRS) personnel transferred the free phase oily liquid waste from Hydrogen Sulfide contaminated on-site above ground storage tanks in the north tank farm to the secondary containment prior to transport for fuel blending/disposal at the Intergulf facility. Free phase acidic oily liquids and sludges were also recovered from the secondary containments and loading dock bays and either neutralized prior to transport and disposal at Waste Management in Conroe, TX and US Ecology in Robstown, TX or stored in temporary on-site storage. Additional site stabilization actions included containment spray wash where needed, utilizing concrete to seal the secondary containment for T-40, and the management of the drums and totes inside the warehouse for continued segregation. Following demobilization of equipment from the site on 12/20/2010, the site was secured.

Additionally, during this operational period, the EPA and their contractors mobilized to the MCC Recycling facility located at 200 Richey, Pasadena, TX following notification by the TCEQ of an active release from the northwest corner of the chlorine contact tank (Z-tank) into Vince Bayou. EPA ERRS personnel recovered approximately 50,000 gallons of oily liquid from the Z-tank prior to transport for disposal at the Intergulf facility. Upon assessment of the containment wall located at the northwest corner of the Z-tank where the release occurred, ERRS plugged the area to stabilize the containment wall. Following stabilization, the site was secured and personnel and equipment demobilized.

During this response effort, approximately 410,000 gallons of oily liquid were recovered from the above ground storage tanks; north and south secondary containments; sumps 34, 35, and 36; the parking lot; bays 45 and 48; and the Z-tank (NRC 959001).

Waste Stream	Disposal Facility	Incident Occurrence	Volume/Weight
Hazardous Sludge (Benzene)	US Ecology; Robstown, TX	Incident 2	11,751 gallons
Hazardous Sludge Washout (Benzene)	US Ecology; Robstown, TX	Incident 2	5 drums
Nonhazardous Sludge	Waste Management; Conroe, TX	Incident 2	89.36 tons
PPE/Solids/IDW	Waste Management; Conroe, TX	Incident 2	10 cubic yards
Nonhazardous liquids	Intergulf; Pasadena, TX	Incident 2	410,000 gallons

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The Potential Responsible Party at this time is US Oil Recovery, LLC.

2.2 Planning Section

2.2.1 Anticipated Activities

2.3 Logistics Section

2.4 Finance Section

2.5 Safety Officer

No incidents or injuries occurred during or prior to this operational period on this response.

Hydrogen sulfide was found at significant levels in the north tank farm during the recovery operation. Additional Hydrogen sulfide personal dosimeters were utilized to further protect site personnel.

2.6 Liaison Officer**2.7 Information Officer**

Additional information can be obtained at www.epaossc.org/usoilrecovery-pasadena.

3. Participating Entities**3.1 Unified Command****3.2 Cooperating and Assisting Agencies**

Texas Commission on Environmental Quality (TCEQ).

Harris County Public Health and Environmental Services (HCPHES).

4. Personnel On Site

Personnel on-site include EPA, START-3, and ERRS.

Additional personnel on-site at their discretion are representatives from TCEQ and HCPHES.

5. Definition of Terms**6. Additional sources of information****6.1 Internet location of additional information/reports**

Additional information can be obtained at www.epaossc.org/usoilrecovery-pasadena.

6.2 Reporting Schedule**7. Situational Reference Materials**

Additional information can be obtained at www.epaossc.org/usoilrecovery-pasadena.

[Click here to view Attached Images](#)

[Web sites](#) | [regional web sites](#) | [profile](#) | [bulletins](#) | [images](#) | [documents](#) | [PollSireps](#) | [contacts](#) | [links](#) |

Questions or Comments?

ERT Software Support: 800-996-6990 - Email: ERTSupport@epa.gov
[Security and Privacy Policy](#)

Reference 8:

Texas Commission on Environmental Quality. Field Notes for U.S. Oil Recovery LLC. EPA Emergency Response. Notes dated July 1, 2010 through November 5, 2010. Written by Terry Andrews, Team Leader, 179 pages.

Terry Andrews - TCEQ

cell - 832-392-0437

office - 713-767-3560

National Brand CHEMISTRY NOTEBOOKS

Blue Cover			
Item No.	Numbered Pages	Ruling	Size
Item No. 43-571	120	Record	9 1/2" x 7 1/4"
Item No. 43-581	120	Record	11" x 8 1/4"

List Practice 27

Pasadena Police - 713-477-1221

Product Guarantee

Rediform is committed to providing you with quality products, and will gladly replace any product which does not provide complete satisfaction. We also welcome your comments and suggestions. Please send your correspondence with product code to:

Rediform Inc.
555 Airline Drive • Coppell, TX 75019

Made in Canada

7/1/10 - USOR ER - Terry Andrews notes

18:25 - Called Adam Adams, EPA, asked him what his plans were. He told me that he was planning on catching a flight to Houston this evening. We made plans to meet around 9:00 am at the site. Response # is NRG#946255.

19:45 - I drove by site, saw that it was locked (front gate). Bayou is above Richway Road bridge (Vince's Bridge) about 6". Did not see any oil or sheens on water flowing down front driveway. Went back to office.

21:30 - After finding out that Adam's flight had been delayed and he probably won't get here till 10 or so, I went home.

22:30 - Talked to Adam, made plans to meet at Site at 7:00.

7/2/10 USOR ER

06:45 - Called David Greene (AG) and asked him to please inform the USOR attorneys that we needed entry to US oil Recovery facility immediately. He told me that he would work on it.

07:00 - Met with Adam Adams (EPA) and his START Team (Derrick Cobb, 832-347-4180 and Rebecca Ayres, 832-594-0429) at Deany's located at intersection of 225 + Richway. We discussed site. Derrick and Rebecca work for Western Solatime Inc., Suite 700, 5599 San Felipe, Houston, TX. Greg Gaudin arrives also.

07:45 - We pull into driveway of US Oil Recovery, 400 North Richway, Pasadena. There is a large HERTZ trailer and driver waiting at gate. The gate is locked. Adam attempts to call the number that is listed on the front gate "6 access" but doesn't reach anyone. As we wait, a man comes from the facility and opens the gate. He says that he does not work there and cannot give us access to the facility. 7/2/10

Not Used

7/2/10

7/2/10 continued - Terry Andrews notes

0838

The trailer pulls in and the man goes back to building. Adam tries a phone number that the man gave him. We have looked along the east side fence of the facility and although there is water running off in several locations, including the front driveway, we do not see any signs of contamination or oil leaving the facility. I called David Greene and he said that he spoke to the USRA attorney and that it was OK with him for us to enter - he reportedly said we could break the locks if we needed to. Meanwhile, Adam has talked to the owner, Klaus Genssler, who answered the number that the man inside the facility had gave us. Klaus Genssler gave Adam the name and number of his attorney, when Adam asked about access to the site. Adam calls this attorney (Wae Sibley, 713.898.0494) and asks for access. Adam told me that the attorney had said that if we sent him an access order that he would sign it and send it to Adam. Adam has someone send him an access agreement.

0900

Denise Hall and Craig Hill, both with HCPHES (Harris County Public Health & Environmental Services) drive up. Mrs. Hall informs us that there is a hearing this morning at 0900 and hopefully, the Judge will appoint someone as a "receiver" for the property (or business?).

0900

The man inside the facility comes back out and tells us that his name is Jeff Baker. He gives his phone number to Adam. He tells us that he has bought some vapor emission equipment from Klaus and that he is moving it out. He says he is taking it to Mobile, Alabama.

Terry Andrews

Not

Used by

TJ Ah

7/2/10

7/2/10 Continued - Terry Andrews notes

0900

Jeff Oakes and the two trailer/trucks leave the facility and lock the gate. Ms. Hall leaves. Craig stays.

0905

Greg, Adam, Derrick, Rebecca, Craig, and I drive around to the west side of the facility. After leaving the trucks on Crown Street, we walked to the northwest corner of the facility. We see that water is running off the property in two separate locations near the northwest corner. Greg and I walked through a wetlands area near several large transmission towers and looked for signs of oil. We didn't see any sheens or oil in this area. This area is between the facility and USOR. I took several photographs in this area. Photo 01 is looking south at rivulet of water coming from site near NW corner of fence. Photo 02 is looking up hill at site. Water is running through the grass to my location.

0915

We notice a large gap (about 8-10 feet) in the fence about 50 feet south of the NW corner. Everyone enters the site through this opening. We see a lined (white HDPE liner) pond that is completely full and is overflowing water from its northeast corner onto the ground. This water is traveling straight north along the building and then flowing off site into the grassed area located north of the site. Photo 03 is looking south at stormwater pond and water coming from the pond. Photo 04 is looking at NE corner of pond and water that is overflowing out of pond. We then looked in bioreactor and noted that it is $\approx 1/3$ full.

0930

We then walked around the north end of the building and equipment to the east side of the building. There is a large parking lot with roll-offs parked along the concrete curb. The gate

Not used

by

TG

7/2/10

7/2/10 Continued - Terry Andreas notes

9:40 parking lot is composed of asphalt & concrete. There is water ponded in the parking lot near the office building. We see oil and a brownish-yellow emulsion-like material floating on the water. We see oil and sheen flowing from the roll-offs and several bays located along the north end of the building into the ponded water. Photo 05 is of oil in a puddle that is flowing from one of the oily bays to the "parking lot pond". Photo 06 is looking south at the parking lot. Photo 07 is looking into uncovered roll off that is parked in the parking lot. Several of the roll-offs (approx. 15) are very full and will overflow if we receive more rain. Photo 08 is looking south at ~150 covered roll-offs in field to the southeast of the parking. Photo 09 is of looking roll off in parking lot area. The roll off is marked "Hazardous Waste Oct 09". The concrete is heavily etched where leak has fallen - suggests that material is acidic. Photo 10 is looking south at water (and oil) ponded on parking lot. Photo 11 is looking south at curb and office building. Photo 12 is looking into roll off with numerous containers. Photo 13 is looking SE at parking lot. Photo 14 is looking mostly E and shows water that has ponded in parking lot is flowing around office building area and then down the main driveway of the facility. Photo 15 is looking west at water flowing from parking lot. Photo 16 is looking south at water collecting at intersection of Richey Road & the driveway. Photo 17 is of skuzzy looking - film on top of water that has ponded at intersection of Richey Road and main driveway. TAC - 7/2/10

Not
Used

by

7/12/10

7/8/10 Continued - Terry Andrews notes

The skuzzy looking film (that is probably the emulsion type material that we are seeing on water ponded in the parking lot) appears to be coming down the driveway from the Facility (USOR), flowing across Richey Road, and then entering Vince Bayou (which is next to the road now). Photo 18 is looking west up driveway at release. Photo 19 is of water ponded upgradient of the driveway intersection with Richey Road. It does not have the skuzzy film on it. Photo 20 is of Vince Bayou which has risen and is now next to Richey Road. The same skuzzy film can be seen here where water has flowed across the road. Area of skuzzy film is small - about the size of a small dinner table. Photo 21 is looking south at water ponded along Richey Road.

10:00 Adam and I conferred and decided that we had seen at least two areas where hazardous substances were leaving the Site. These were the stormwater pond discharge and the parking lot pond discharge. We continued to make calls to determine if anyone knew about our access agreement but were told that they were still in the hearing. We decided to take a lunch break and wait for access agreement to be signed. Adam says that he had spoken to his regional council and they preferred him to have a signed access agreement before we got to work.

10:45 I leave site and eat at fast food nearby. I speak with Donna and tell her about access situation. I then head to office and check emails.

12:30 I receive email with consent agreement attached - signed by Joe Sibley. I leave office and drive through extremely heavy rain. *Terry Andrews*

Not
used
by

Jy
7/2/10

7/2/10 Continued - Terry Andrews notes

- 1300 Arrived at Site in heavy rain. I noticed that the bayou has ~~risen~~ risen and now is over Richey Road in the area of the driveway. I park at the railroad and walk in. The START team is conducting an inventory of roll-off boxes that have high water levels. Office is unlocked.
- 1440 Eagle SWS (ERRS Contractor) arrives at Site. They bring approx. 6-8 men, 4 pickups, cargo truck, trailer, and a large bobtail truck. They place booms near south end of parking lot pond and begin sucking fluids out of roll-off boxes that contain high levels of water/fluids.
- 1450 Photo 22 is looking east at oil/emulsion floating in parking lot pond. Photo 23 is close up of same. Photo 24 is looking at oily bay where since oil is flowing out onto the parking lot. Photo 25 is looking west at open roll-off box that is overflowing onto parking lot. Photo 26 is looking southwest at Eagle SWS personnel piping liquids out of roll-off that was pictured in Photo 25.
- 1530 {
- 1650 Bayou has risen dramatically ~ 4 feet above road at intersection of Richey + USOR. Eagle tried to deliver free tanks but water is too deep. Photo 27 is looking South at large group of roll-off boxes at Site. Photo 28 - Same, Photo 29 is of manifest in northernmost office. Photo 30 is of boxes of invoices, manifests, and other facility records in northernmost office. There are approx. 60 boxes of records and 25-30 file drawers of records. Photo 31 is of file cabinet and boxes of records in northernmost office. Photo 32 is a photo of manifest in northernmost office. I took a walk through the main building there are hundreds of drums and tanks in the
- Jy* 7/2/10

Not
Used

by

Ty

12/10

7/2/10 Continued - Terry Andrews notes

Central part of the building. Photo 33 is view of stacked drums. Photo 34 is view of totes.

Photo 35 is view of Vince Bayou at flood stage.

Photo 35 is taken from where I parked along railroad.

1730 Photo 36 is looking north at Vince Bayou.

As the rain continued we continued to place booms and pads to soak up oil and remove oil and sucked up water from roll-offs.

2030 All Eagle and Western personnel leave site except for 2 Eagle personnel who are staying the night and watching everything. They have a light/generator set. I leave site.

7/3/10 - beautiful sunny weather - (at first)

0745 I arrive at site - set up office. Frac tanks begin arriving (two are already here and set up). They off-load the bobtail and begin pumping water from the parking lot pond. 6-8 Eagle Personnel are here and Rebecca & Derrick of Western are here. Workers bring in frac tanks and set up pumps and hoses. They begin pumping out secondary containment areas in the northern part of the facility where a lot of the oil seems to be coming from.

1000 Adam and I discuss the manifests and he asks his START team to begin scanning all of the records in the office. It begins to rain again.

1057 I walk around site and take some photos as follows:

01 - looking south at parking lot pond - back again after heavy rain episode.

02 - frac tanks set up by EARS team - note secondary containment liners.

03 - frac tank closed.

04 - bags of booms (used) that we have generated. 7/3/10

Not
USED

7/3/10

7/3/10 cont. Terry Andrews notes

- 05 - View looking east down main driveway - note
no runoff from parking lot pond
- 06 - View looking north at diminished parking lot
pond (with pump + hose), bobtail truck, five
tanks in distance (orange/red color)
- 07 - Same view
- 08 - View of looking roll-off on parking lot
- 09 - View of front door of office, Eagle
Carga truck + bobtail truck
- 12:00 I leave site for lunch - it begins to rain harder
ERRS team has set up ~ 6 five tanks and are
pumping water/liquids/oil from roll-offs, secondary containment,
parking lot pond. Crew is continually placing and removing boom on
- 13:30 I take another walk around site and take the
following photographs:
- 10 - View of parking lot pond with boom (south
end)
- 11 - View from office window looking west during
moderate rain - not portable toilets, eye
wash station, five tanks, pressure sprayer
on far right of photo. Orange containment
boom is from yesterday's containment
- 12 - View looking north at parking lot pond
- 13 - View of overflowing storm water pond
- 14 - View of bay in northern area of main building
- 15 - Same - strong ethylene glycol odor here
- 16 - View of another oily bay in northern area
- 17 - View of ERRS team five tank
- 18 - View of oily bay - oil is being discharged
from this bay during high rainfall
- 19 - View of another bay in north part of main
building
- 20 - View of bay with oil - edge of covered area
7/3/10

Not
used

7/3/10

7/3/10 Continued - Notes by Terry Andrews

- 38 - Photo of leaks in large tanks in NW part of tank area
- 39 - Photo of liquid level in secondary containment - photo 29 was collected next to this
- 40 - View looking north from catwalk in tank area
- 41 - View looking north of site from catwalk in tank area
- 42 - View of roll-offs and far tanks parked along north end of parking lot

I noticed that most of the storage tanks are full.

Rest of afternoon was spent performing inventory by the START team, and continued pumping and booming by the ERS team. The start team also completed started scanning documents + records. By 6:40, discharges from the parking lot pond is under control (pumped down) and we are ready to go into night mode. During night mode we have two personnel (from ERS team) who watch site all night till the rest of the team gets back here at 7:00 AM. I left site at 6:45.

7/4/10

0659

I arrived at Site. I made a brief walk through - parking lot pond has been pumped down to just a small area - approx. 40 feet by 10 feet. Sunny with light south wind. ERS contractors are pumping down various areas these include the sec. containment areas to the AST area and numerous roll offs. START Team are assessing the roll-offs (two personnel) and the ASTs.

Terry Andrews 7/4/10

NOT
USED

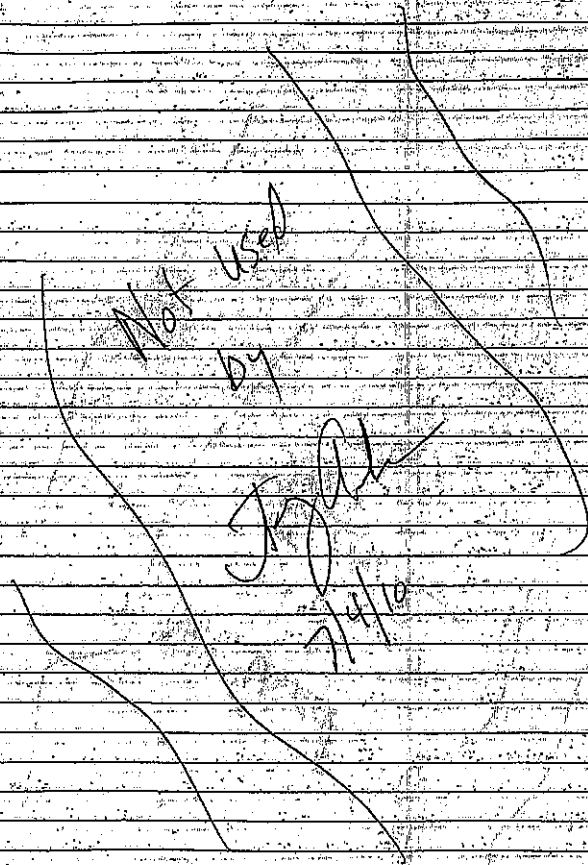
BY

Terry
Andrews

TJA
7/3/10

7/3/10 Continued - Notes by Terry Andrews

- photo 21 - View of bags - with oil + emulsions
- 22 - View of oily walking - pump is
pumping water from area-filled secondary
containment area.
- 23 - View looking north at parking lot
area next to oily bags where oil is draining.
- 24 - View looking west at northern treatment
area (uncovered area)
- 25 - View looking south at parking lot
pond after rains
- 26 - northern treatment area
- 27 - northern treatment area
- 28 - Stairs leading to secondary containment
around tanks
- 29 - Photo of stairs, water is overflowing
down wall from secondary containment
area
- 30 - Roll-off parked on NE corner of
parking lot
- 31 - View looking west at sheens on
pavement
- 32 - View from aeration basin / bioreactor
looking south at stormwater retention pond
- 33 - View of aeration basin
- 34 - View of aeration basin - water looks
about 2-3 feet deep. (could see ladder)
- 35 - looking at roll-offs positioned along
western perimeter of facility - note gap in
fence
- 36 - View looking north from aeration basin
- 37 - View of water running off-site - water
is mostly from area at stored roll-offs
along western fence.



7/4/10

0750 Personnel at the site included the following:

Weston - Rebecca Agresti, Derrick Cobb, John Lynch,
Jason Fulton, Cynthia Holt, Heather Sherr,
Amy Collins

Eagle - Gary Bibb (head), Jose Rangel, Asa Shrawsbury,
Miguel Saez, Jesse Plancarte

EPA - Adam Adams

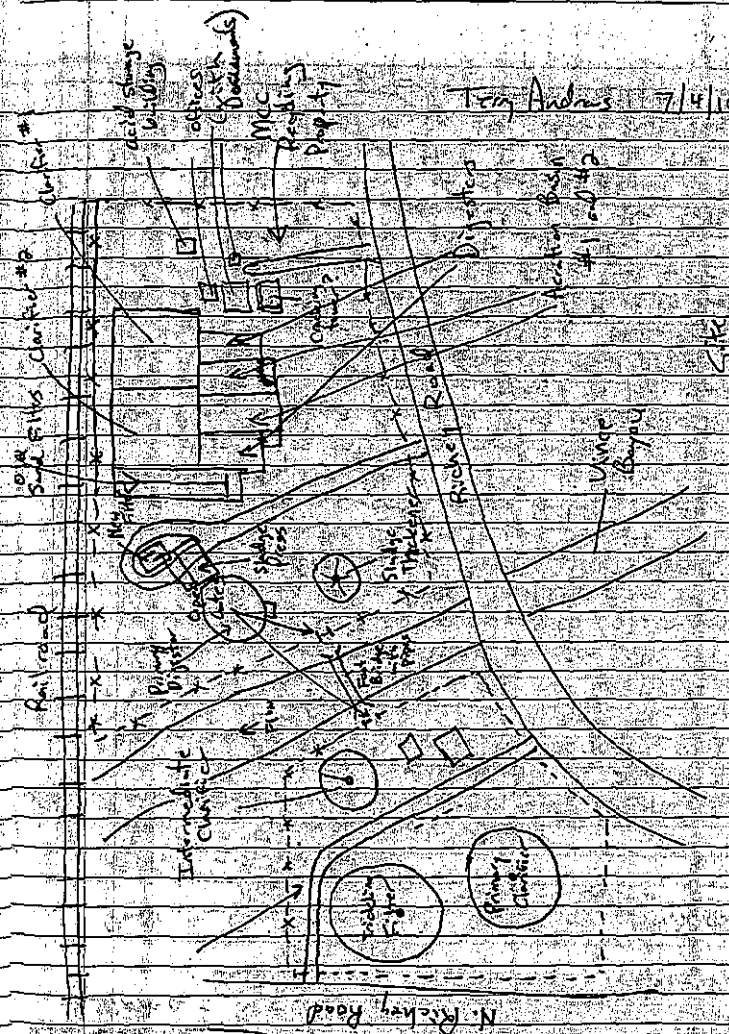
Shaw - Stephanie Loringhouse

0800 Derrick, Adam, and I visited MCC RecytlTM Recycling and the US Oil Recovery property located at 200 N. Richey. We called the perimeter fence of MCC Recytl East located at 200 Richey (not North). The property appears to be abandoned. On the west side of the property we encountered an open gate with no warning signs. I saw a oily path (shiny grass and sheen on water drops) leading from this gate to within 5 feet of the Bayou. We entered the property through the open gate and followed the oily path to a small concrete walled building. Oily water was present on the floor of this building and was discharging onto the ground outside of the building through a drain way that faces south. The oily water in the building appears to be coming primarily from a 2 1/2 inch diameter steel pipe located at the SE corner of the building. However, the room appears to be a pump house and there is grates and other possible areas in the floor that water could be coming from. From now on I will refer to structures according to nomenclature on the following page. I got the names of structures shown on the map from a figure that I found in the northernmost office in the office building at USOR.

7/4/10

Not Used by [Signature]

Terry Andrews 7/4/10



Not used
by

7/4/10

7/4/10 Terry Anderson notes

- 0807 Took photograph 01. View is looking north at pump house with oil leak. The stained grass led from the door and then traveled to the sidewalk at a point on the far left of the photograph.
- 0808 Photo 02 - View looking down sidewalk where oily water had obviously traveled (stained grass + sheen). Oil is visible on sidewalk. Oily pitting leads to the open gate and then to the bayou beyond. View is to the west.

- 0809 Photo 03 - View inside pump house. Oily water appears to be coming from p.p. in SE corner (right side of photo).

I climbed up the stairs to a sledge press which is attached to a large AST (primary digester) and took the following photographs.

photo 04 - looking east at old sand filter and clarifiers.

photo 05 - looking south at new sand filter.

photo 06 - looking southeast at old sand filter in foreground, note chalking towers (?) in background behind AST (blue).

photo 07 - looking southeast at sledge thickener. Wall of Primary Digester is far right of photo. Pump house with oil leak is behind wall.

photo 08 - view looking southeast at top of primary digester. Freeboard is estimated to be approx 3 feet. No visible oil.

photo 09 - View looking northwest at NE corner of property.

photo 10 - View of new sand filter. Leak from structure is occurring directly behind personnel and flowing north across road to perimeter fence.

TJ 7/4/10

Not Used
by

7/4/10

7/4/10

- 0916 I walked down to new sand filter structure and saw a leak that appears to be occurring from the bottom of the well located near the NW corner of the structure. Clear looking water is flowing from a crack in the concrete at the base of the well. The water is then flowing into some grass and then coming out onto the road and then grass to the north. Photo 11 is looking south at leak. Photo 12 is ~~the~~ looking north at path of leak. I then walked over to the large structure where the aeration basins are located. Photo 13 is of pipes leading to the aeration basin/digester structure. There are two large clarifiers located on the north side of these structures. Each of these clarifiers has pinkish/red colored water in them. The water level in both is ~18 inches below the discharge well level. There is about 2.5 feet to 3.5 feet of freeboard above that. Photo 14 is looking ~~NE~~ at clarifier 01 (Eastern one). Photo 15 is looking NW at clarifier 02. There was brownish looking water and visible sludge in both of the digesters that lie on either side of the aeration basins. Freeboard in the east digester was approx. 8 feet and freeboard in the west digester was approx. 16 feet. I couldn't tell how much water was in the covered aeration basins. We then walked past what appears to be a cradling tower to the SE of the digesters. We then looked in several small office buildings. One of the buildings held 250 boxes of files with "US Oil Recovery, Guatemala, Kelans" written on them. Tay A 7/4/10

Not Used
by

7/4/10

7/4/10 Terry Andrews Notes

0820 I then looked at a small blue metal building that was filling apart. It has many holes and appears to be rusting very badly. It has a large poly tank inside that does not look like it is leaking. This looks like an acid storage shed to me. Photo 16 is looking southeast at shed. Photo 17 is another view (slightly different angle). We then walked through high grass along the northern boundary of the property. Photo 18 is at (Clarification) Photo 19 is looking west along perimeter fence (north boundary).

On the way, we walked by the north end of the old sand filter and I collected a photo 20 of the sand filter looking south. Freeboard in the filter was approx 4 feet in both sides. Then we walked back to the pump house with the oil leak where we started our visit. Photo 21 is of the area where most of the water seems to be coming out of the square box like metal thing on the far right of the photo. A 2 1/2 inch pipe is cut off here and oily water can be seen flowing from it and onto the floor of the building.

0847 Photo 22 is of oily water pooled just outside of the pump building.

Photo 23 is of oily water on floor of pump building.

0848 We then left the property by going out the unlocked gate. We shut the gate behind us as best that we could (no lever or lock on gate). Photo 24 is of oily path leading along side of the footbridge over the bayou. Photo 25 is of the bayou looking north from the footbridge. No oil or sheen was visible in bayou.

TJA 7/4/10

Not Used
by

7/14/10

July 4, 2010 Terry Andrews notes

0848

We then walked along the perimeter fence on the east side of the US Oil Recovery property located at 200 North Richey. We didn't see any signs of contamination leaving this side of the property. We encountered an open gate located on the sidewalk near the foot bridge and entered the property. There were no warning signs and the gate was unlocked and open. Photo 26 is looking west at open gate that is used to enter the property.

On this property we saw three large clarifiers. The first clarifier that we saw is nearest to the bogou. It had a firebird of approx. 3 feet and had brownish colored water - no oil or sheen.

0903

There is a large concrete structure located on the far north end of this property near the road.

This structure appears to be some kind of a pump station as there are several large pipes leading into and out of it. We saw three poly drums in this area, two drums were full and were labeled as "Ammonia" and "Aqua Ammonia 20%".

One of the drums had a small poly sample bottle sitting on it. The bottle has a brown liquid in it and has "USOR 4-1" written on it with a permanent marker.

Photo 27 is looking east at concrete structure and drums.

Photo 28 is a close view of drums.

Photo 29 is another view of the same. Photo 30

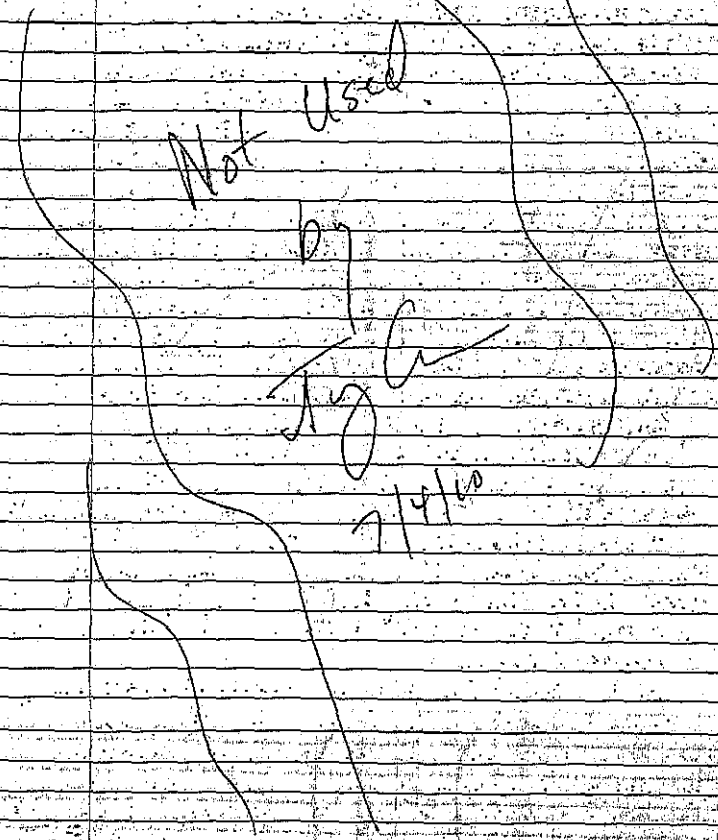
is close up of sample bottle. The other drum

was empty. Photo 31 is looking southeast at the

first clarifier (Intermediate Clarifier). Photo 32

is looking at the trickling filter that is located on the

7/14/10



7/4/10 - Notes by Terry Andrews

For west part of the property.
We then looked at the Primary clarifier. It has oily looking water. The water had an area of oil like material floating on it in the southern part of the tank and a sheen over the rest. The free board in this clarifier is approx 7 feet. Photo ~~33~~³³ is looking south at the Primary clarifier. Photo ~~34~~³⁴ at the weir. Photo ~~35~~³⁵ is of the wall of the clarifier showing a PVC piping into the impoundment. We then walked towards the lagoon and encountered a tote on a stand. The tote was labeled "SWR 530E". Photo ~~36~~³⁶ is of this tote. We then left the property closed the gate and headed back to the site.

0944 Made site walk. Took photo ~~37~~³⁷ of parking lot area. ERRS team is stem cleaner area near sump.

13:48 Watched START team remove cover from one of rolloffs located with the large group of rolloffs in the SE portion of site. Waste is very wet and rolloff box is $\approx 1/2$ full. Photo ~~38~~³⁸ is of inside of rolloff. Photo ~~39~~³⁹ is of rolloff (south end of maze) with cover rolled back. Photo ~~40~~⁴⁰ is of 6 inch PVC line that runs from the northern part of the facility to the SE corner of the property. Photo ~~41~~⁴¹ is looking east of line. Photo ~~42~~⁴² is at the SE corner of the property. Line extends off property. Photo ~~43~~⁴³ is

view of parking lot pond area. Photo ~~44~~⁴⁴ is view of sump and pile of grit that was moved from the sump.

The team continued to work all day (Till 7:00 PM) pumping off secondary containment areas, assessing rolloffs + waste, scanning documents. July 4th 2010

Not used
by
JG
7/4/10

7/4/10 Continued - Notes by Terry Andreas

From 1600 to 1730 we had a meeting and discussed activities. At this point in the project we have 10 free tanks on-site. 9 of them are full and we are currently pumping into the 10th one. We identified action items that included:

- collect water sample to dispose of collected fluids.
- collect water sample of discharge from retention pond.
- fix fence and put up signs (warning signs).
- keep assessing roll-off boxes and stored wastes.
- keep watching 7-7 (one person watching site at night).
- keep pumping off water to free tanks - to use it once again.

I left site at 20:00. Mr. Raymond Denton, Eagle SWs, is watching site tonight.

7/5/10

Arrived at site at 07:45. Raining. Worked on site notes + photographs. Collected two photos of START team measuring oil levels in ASTs.

Still pumping water from secondary containment area.

By 9:30 it had stopped raining. We handled the rain well and continually pumped water from the piping lot collection area.

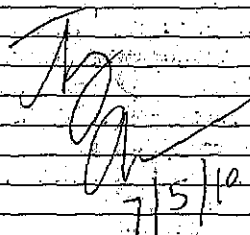
The START team has two people scanning documents in the north-west office. The START team also has two people assessing the roll-offs. The START team also sampled the surface water from the retention pond.

They collected the sample where the pond has been discharging. They planned to analyze the sample for VOC, SVOC, and metals (22).

JG 7/5/10

Not Used

by



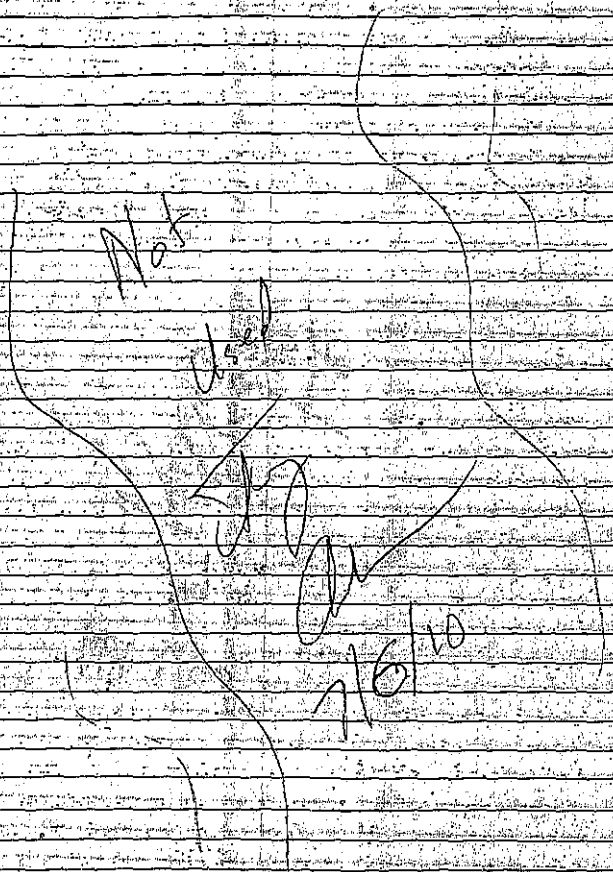
7/5/10

7/5/10 - Notes by Terry Andrews

The ERRS team continued to pump water from containment areas and indeed are getting boxes and covers on roll-offs. At this point we have 10 box tanks (20,000 gallons) each that are full. The fence break was repaired. Work stopped at the facility at 0700 PM. I left at 8:00 PM. Photographs 01-03 collected at 7/6/10 northern section containment area.

0800 I arrived at site at 0800. Personnel at site include:
 Eagle - Guy Babby, Daniel Bonds, Tialed Aeris, Viviane Gancel
 Shaw - Stephanie ~~Levinghouse~~
 Weston - Rebecca Ayers, Derrick Glob

1342 Left site at 11:00. Back at 13:42. Everyone is working. Water sample of retention pond was submitted this morning (07:45) to lab. ERRS team is performing roll-off box assessment to determine what is needed to "button there up" appropriately. Doc scanning is continuing. Weston brought a new guy (Oaire Chernick) on board to help manage files. Olga Selina came out after lunch and bought me a computer. I found out from Ed St James that the properties east & west of the bayou is known as MCC Balping.
 1500 Walked around site and took some pictures. Photo 01 is of oily water still seeping down well onto ramp in the northern part of the USOR facility. Photo 02 is of the bags that were oily and there oil and/or emulsions were ~~draining~~ ^{leaking} out onto the parking lot area on July 2, 2010. We have pumped down and pressure washed parts of these bags. Photo 03 is of the treatment secondary containment area. This area was overflowing oily water on



on July 24/3

July 2. We pumped this down all out to prevent discharge of oily water.

Photo 04 is of the walking way between the secondary containment for the treatment area and the ASTs.

Photo 05 is of the AST area (and treatment) secondary containment. This area is very oily and was discharging oil into the parking lot on 7/2/10. Notice shown.

Photo 06 is of the acid tank & its containment area. Drawing of containment areas.

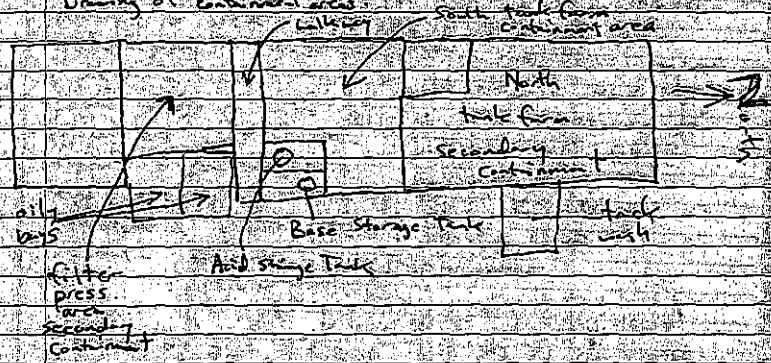


Photo 07 is of the base (caustic) storage tank & its containment area.

Photo 08 is of the Filter press area secondary containment. This is covered but very oily.

Photo 09 is of the loading area east of the South tank farm containment area.

Photo 10 is of the bags located east of the Filter press sec. containment area.

Photo 11 is the parking lot area. Photo 12 is of the truck wash area. Left site is 7/6/10

Not
used

SKY

W

7/7/10 713-443-6089

10:36 Elizabeth Guynn, HCPHES, came by 10:30 and we traveled down to the SE corner of the site. She told us that the small fence area just east of the SE corner fence is the USSR lift station that handles process water and sludge. She said that she thought that it was shut down by the injunction. Then we drove over to the entrance to the 200 Ridge site and parked at the south entrance. Ms. Guynn told me that there has been numerous discharges (leak) from the lift station and it had included process water. We walked down the banyon and she showed us the PVC pipes that USSR had placed across the banyon. I took two photos of this. Then we looked at the outfall structure located on the west side of the banyon. She said that it was the same as the one we saw on 7/4/10. The valve is closed or not. We then looked at the two releases that we saw on 7/4/10. The release that I described as coming from the new sand filter on 7/4/10 looks worse. The water looks black and the ponded water is black. The pipe has also died when the oil release occurred from the pipe here. I collected several photographs.

1:00 PM We came back to the USSR and talked to Adam. Ms. Guynn says that USSR put hazardous waste (sludge from wastewater) in the chlorine contact unit (what I was calling the new sand filter). That means that the water is draining from hazardous waste. Ms. Guynn says that it is possible from the hole that the facility supposedly knocked into the outfall at the structure to illegally dispose of wastewater.

J.P.A. 7/7/10

Not
used

7/7/10

7/7/10

Adam told us that it would be easier to respond if the county and T&E called the release into the NRC so Ms. Guyan called the NRC and reported the release. I helped explain the release to the NRC receptionist and at the end he asked for my name, which I gave him.

224 PM - Adam told us that they were going to handle the MCC Recycling Site with the ongoing ER at ~~USOR~~ USOR.

I collected the following photos while walking with Ms. Guyan. Photo 01 is of USOR pipes (white & blue PVC pipes) going over Vince Bayou.

Photo 02 is looking at pipes attached to bridge with nylon straps.

Photo 03 is of lift station that has been known to overflow. It is located on west side of MCC Recycling just north of old intermediate clarifier.

Photo 04 is close up of the lift station in Photo 03. Water level is ~ 3 inches below grate. This has been known to overflow during precipitation events.

Photo 05 is old lift station where MCC had placed an oil/water separator. It is gone now.

Photo 06 is of pumps located at old lift station in Photo 05. This is seeping liquid.

Photo 07 is of valve box between the primary clarifier and the trickling filter. Ms. Guyan says that this valve box is connected to the water level in the primary clarifier (the one with oil in it). And it will overflow before the clarifier. Freeboard here is approx 3-4 feet.

Photo 08 is of dead grass from oil spill on the west bank of Vince Bayou. At head end of the dead grass led from the pump house to here.

7/7/10

Not
Used

7/7/10

7/7/10 - Notes by Terry Anders

Photo 09 is looking west at the dead grass that shows where the oily water discharged from the pump house (blue building) out the door and to the bayou.

Photo 10 is of the oily and dead grass outside of the pump house.

Photo 11 is at the East facing door of the pump house, a lesser amount of staining was present here.

Photo 12 is at the apparent source of the oily water in the pump house that discharged last Friday to the bayou.

Photo 13 is of the sludge thickener/clarifier. Outer concrete wall is relatively new - freeboard is ~ 18 inches.

Photo 14 is of lift station #1 - this installed flow of water between reaction basins, digester, and clarifiers that were built in early 1990's. Water level is ~ 4 inches lower than it was on 7/4/10.

Photo 15 is looking inside office building at MCC. Recycling - approx. 50-60 boxes that look like file boxes are in building.

Photo 16 another view inside locked office building.

Photo 17 - lift station #1.

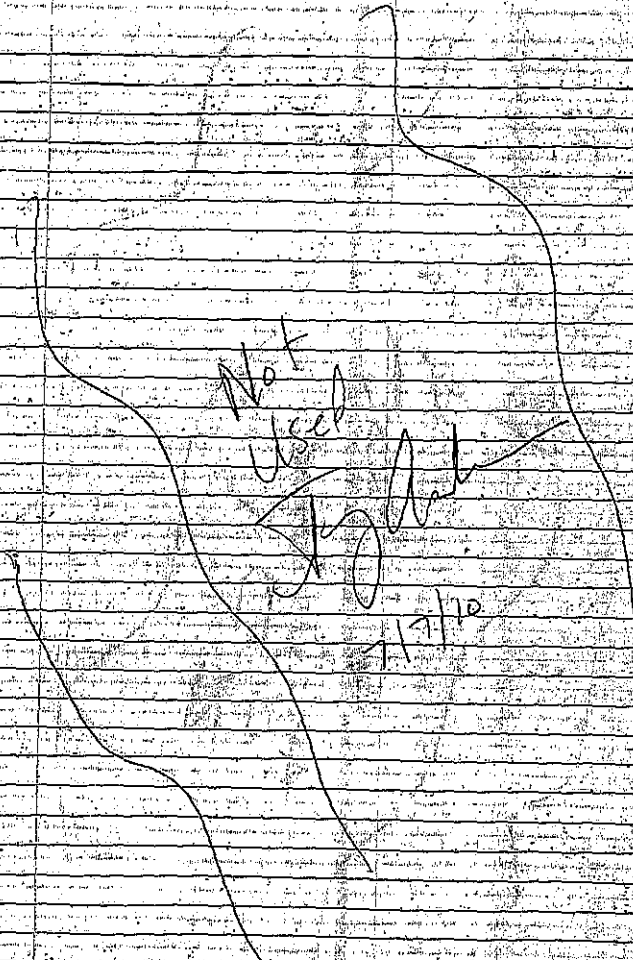
Photo 18 - black-stained water down gradient of black at NW corner of the Chlorine Contact Chamber (CCC). Water (liquid) is flowing from left to right across concrete road, among grass area, and then flowing west through grass to NW corner of property.

Photo 19 - black-stained liquid next to CCC.

Photo 20 - dead grass (impacted from oil spill) on west side of pump house, looking oil/water.

Photo 21 - view of pump house with dead grass around it.

Terry Anders



7/7/10

Photo 22 is of water discharging at northwest corner of property (MCC Recycling). This is where the water drains from the CCC area and runs or flows off site.

Photo 23 is looking north at bridge over bayou. The post on right side of photo is the corner post for the northwest corner of MCC Recycling. Water is flowing from the property into the grass area and then into Vicer Bayou.

Photo 24 - looking east at grassed area where runoff from the CCC is flowing.

Around 4:00 PM, the ERS team brought three fuel tanks into the MCC Recycling property and began pumping liquids from the CCC and the oil pump house. Pumping continued till 7:30. They are piping from the SW corner of the CCC and as they pump the liquid level is dropping uniformly across the CCC. By 7:30 they lowered the liquid level 30 inches and filled two fuel tanks (40,000 gallons). The hole in the outfall that is thick is causing the surfacing problem is still not visible. The ERS team also piped to enter in the oil pump house down and are working on placing valves on the pipes that are causing the oil release.

I left site at 7:30. The USOR site looks good and they are piping rain water that is collecting in the parking lot into north tank from sec eastward.

7/8/10 - Raining!

I arrived 5:25. ERS + START Teams are here and working. They are piping the parking lot area into North Tank Containment Area. They are piping the CCC down into the 3rd fuel tank. I took 12 pics of the USOR site.

Not
Used

7/8/10

7/8/10 Notes by Terry Adams

9:45 I looked at the CCC. The lake (surface fluid) has slowed down dramatically. The level in the outbox part of the CCC (where the hole probably is) is approx. 12 inches higher than the rest of the CCC. I called Adam and let him know this. Because the bayou is so high, I left the truck at MCC Recycling and walked back. On the way, I took some pictures of the bayou. It has risen to almost the northeast corner past of the MCC.

Recycling area

I collected the following from 9:20 to 9:55 AM

Photo 01 is of the parking lot area - I couldn't see any sheens or oil on water that is pooled in this area.

Photo 02 of three 2 inch pumps pumping water to the South Tank Containment Area.

Photo 03 is of sawdust pile that has been discharging an oily material.

Photo 04 shows hoses going to South Tank Containment Area.

Photo 05 shows no freeboard in North Tank Containment area and about a foot freeboard in South Tank Containment area.

Photo 06 shows oil in North Tank Containment area.

Photo 07 shows small discharge - overflow from truck wash area.

Photo 08 is of ramp south of South Tank Containment area.

Photo 09 - is of walking area south of South Tank Containment area.

Photo 10 to the right of the #11 is the Filter press Containment area.

Photo 10 is truck loading area.

Photo 11 is looking South at parking lot.

Photo 12 is of CCC at MCC Recycling. Photo is ~~not~~ ^{by} ~~the~~ ^{me}

Not Used
 7/8/10

7/8/10

of outfall area of CCC. From water mark it looks like high level has been reduced (lowered) about 18" from last night (7:30 PM) to yesterday morning. Photo #13 - is of the CCC and shows the outfall weir. To the left of the weir is the water level in the outfall area. At 7:30 last night the water level was level with the weir elevation. The drop shows the amount of flood that has discharged from the outfall area of the CCC (surface discharge). The water level to the right of the weir shows the pumping level that was reached last night at 7:30.

Photo 14 - looking into CCC - notice oil & sheen in outfall area.

Photo 15 - surface seepage area - Flow has visibly been reduced by pumping the waste out of the CCC.

Photo 16 - surface seepage area - Flow is reduced from yesterday morning.

Photo 17 - surface seepage area, next to wall of CCC. Flow is reduced from yesterday morning.

Photo 18 - surface seepage area.

Photo 19 - Vince Bayou has risen to NW corner of MCC Recycling (East side).

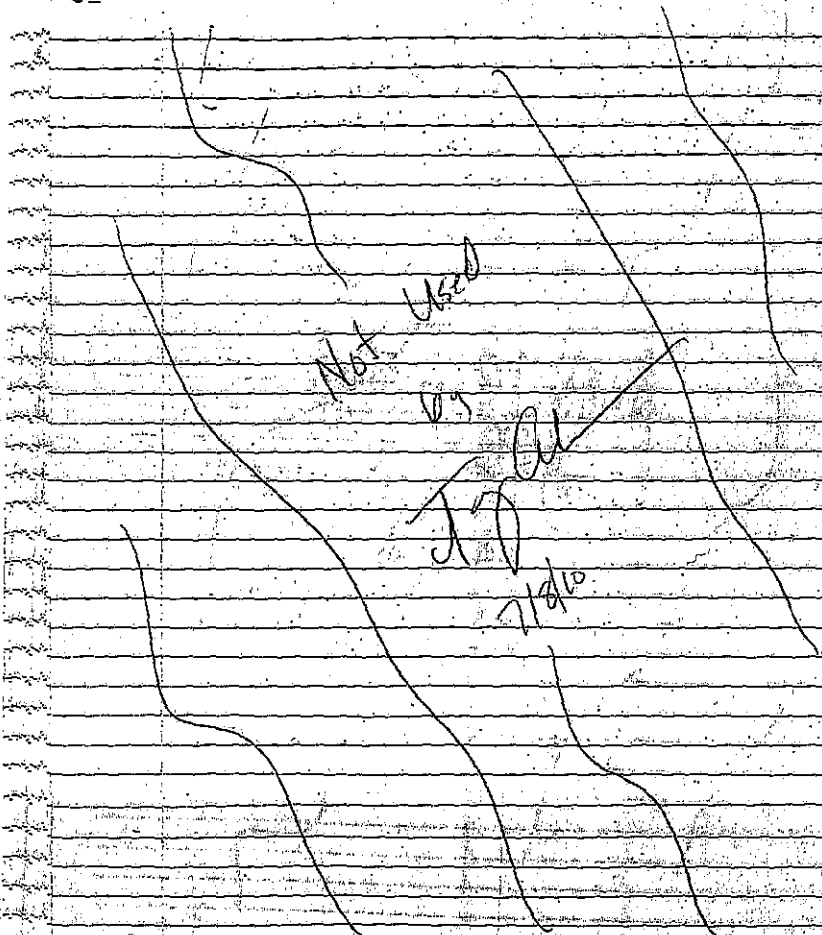
Photo 20 - Vince Bayou at flood stage adjacent to Site.

Photo 21 - View of NW corner of MCC Recycling (East side). Bayou has risen to corner of site.

Photo 22 - View of northern area of the east side of MCC Recycling.

Photo 23 - View of area between MCC Recycling East side and the Bayou.

12:08 I looked at the CCC area and collected some photographs of this area and the MCC Recycling site. To CW 7/8/10



7/8/10

12:08 photo 24 - View looking at inside of west wall of the outfall structure. Hole is visible near corner of the outfall. It appears to be allowing liquid to flow back into the outfall.

photo 25 - View looking west at outfall part of the Chlorine Contact Chamber (CCC). Hole in structure is visible to the left of the green hose and just above the water line.

photo 26 - View of outfall with hole on back wall.

photo 27 - View of CCC walls.

photo 28 - View of outfall of CCC.

photo 29 - View of northeast part of the east half of MCC. Fibers from the scrubbing sump drained into the ponded area on the road and then crossed the road and flowed to the NW corner of the property.

photo 30 - View looking west from CCC.

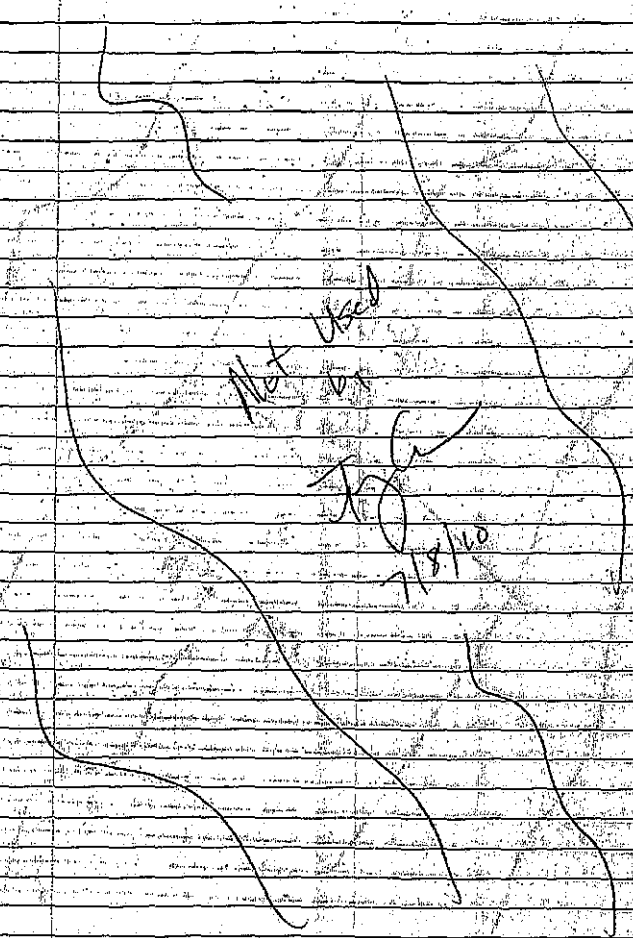
photo 31 - View plugs that have been placed in pipes to seal oily water discharge from pump house.

photo 32 - View of lift station #1 that is discharging into ground (over-filling). I told Adam about this when I saw it at 12:25.

photo 33 - View of lift station on west side of MCC. Freeboard is approx 16".

2:00 Visited Elizabeth Anglin at the HCPHES. She gave me some drawings of the CCC.

3:00 I returned to site. No pumping is ongoing at MCC Recycling Site. Pumping from Freeboard containment areas to free tanks is ongoing at USOR. Adam and Derrick (START Team) checked on MCC Recycling areas that 7/8/10



7/8/10 Continued Notes by TJ Coe

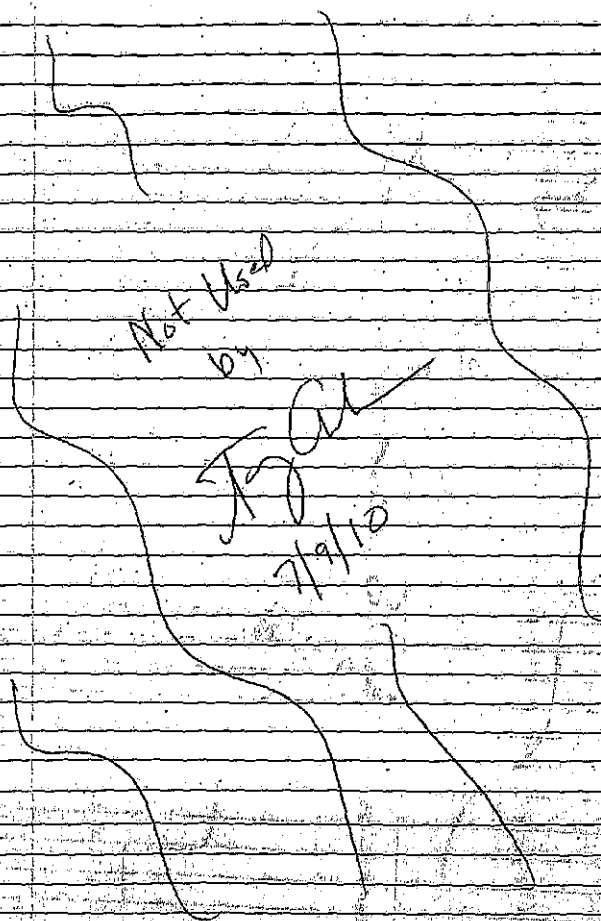
May be over-flooding
left site at 6:15

7/9/10

Here at 0800, Adam reports that everything is going well. Plans to day to start going thru damaged and tested wastes. Intent is to insure that wastes are stored properly - physical stability and chemically compatibility.

0900 I walked around site. I noted that the North & South Tank Farm containment Areas are both full. The ERRS Team is paving over paved area in parking lot. I noted that the sand dust pile has a discharge that looks stained and has a sheen. I mentioned this to Adam. I then went over the MCC Recycling area. I noted that the surface seep area is dry. I also noted that the outfall area of the CCC has liquid in it almost to 2 foot holes - the final weir, which is about the elevation of the hole. I called Adam and let him know this immediately. I then noted that the concrete trench (that leads to the gate valve where flow is released to the CCC) is closed and almost empty. I then returned to the site office. Photos are labeled as follows:
 Photo 01 - view of sand dust pile with discharges, USOR
 Photo 02 - view of sand dust discharge, USOR
 Photo 03 - View of water in tank B at Secondary containment, USOR
 Photo 04 - View of parking lot pad - looking South, USOR
 Photo 05 - sand dust discharge - note sheen, USOR
 Photo 06 - sand dust sheen, USOR
 Photo 07 - sand dust pile with boom, USOR
 Photo 08 - South Tank Farm Secondary containment, USOR

TJ Coe 7/9/10



7/9/10 - Notes by Terry Andrus continued

- Photo 09 - View of water in South tank from secondary containment area USOR
- Photo 10 - truck loading bay USOR
- Photo 11 - oil on water in truck loading bay
- Photo 12 - water collected in truck loading bay from yesterday's rain USOR
- Photo 13 - truck wash area USOR
- Photo 14 - truck wash area USOR
- Photo 15 - View of water in outfall area of CCC
we had this dewatered yesterday.
Water level is about 2 feet
below final weir (in foreground
of photo) MCC
- Photo 16 - View looking west at outfall
area of CCC. Liquid is trickling
from hole in wall. MCC
- Photo 17 - View of east wall of outfall of
CCC. MCC
- Photo 18 - View of CCC looking South MCC
- Photo 19 - View of area where seepage
was occurring on July 4, 7, & 8, MCC
Surface seepage has disappeared. MCC
- Photo 20 - View of former seepage area. Hole been
blocked and water level MCC
- Photo 21 - View of concrete trench that leads from
discharge/clarifier area to the CCC. MCC
- Photo 22 - View of "lift station #1" - currently
discharging. MCC
- Photo 23 - View of discharge from lift station #1 where
it crosses sidewalk to the SW
of lift station. MCC
- Photo 24 - Gravelly low area south of the lift
station #1 MCC TGA

Not Used
07

7/9/10

7/9/10 Continued - Test, Aches Notes

Photo 25 - View of surface drainage pipe where area drains south of 915T station #1, MCC

Photo 26 - Overhead view of lift station #1, MCC

Photo 27 - View looking east. Classifier #1 to the left, digester #1 to the right, MCC

Photo 28 - View looking northwest. Classifier #1 in background. Classifier #2 in background, MCC

Photo 29 - View looking north. Classifier #1 on right, classifier #2 on left, MCC

Photo 30 - View of NW corner of classifier #2, MCC.
Note - our face tanks (Red with Adler on side) are behind sand filter structures, MCC

Photo 31 - Large tower is oxygen tank/system from former water plant. First building to the right (light gray cinder block, white trim, gray roof) - near center of photo is where records can be seen inside. MCC Building to the right with open door has misc. parts and trash inside. MCC

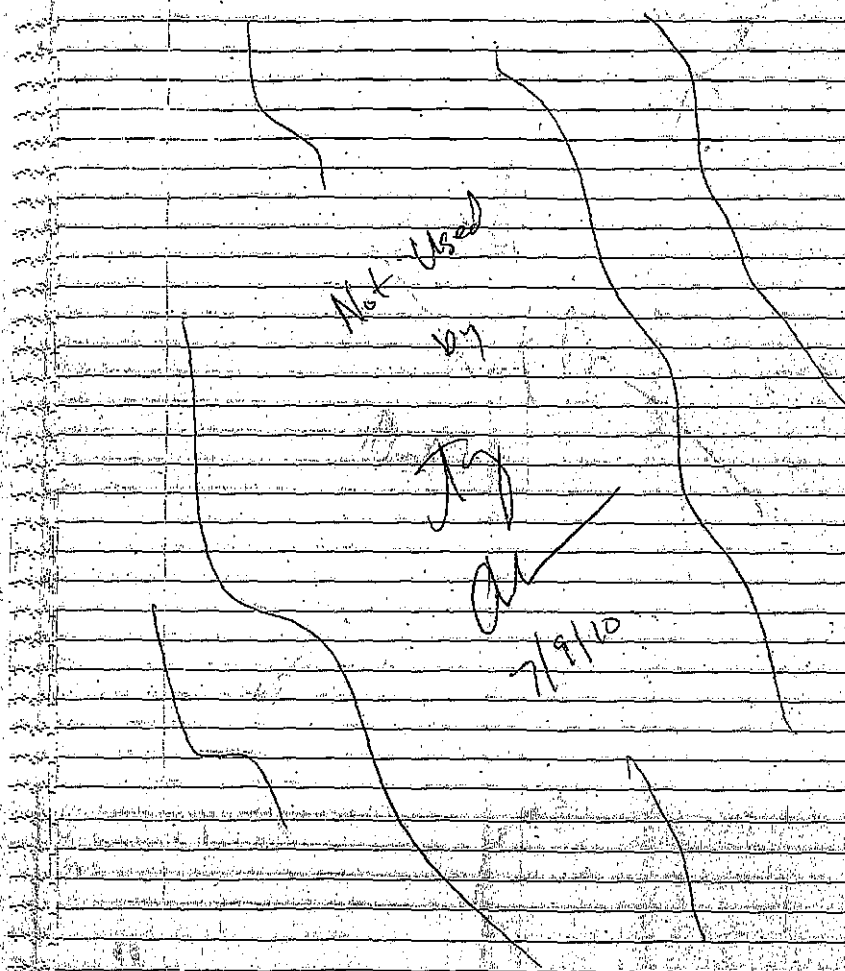
Photo 32 - blurred photo but you can read "USUAL GUATEMALA (KLAUS)" on the box on the right side of the photo. Photo was taken of stacked boxes that can be seen by looking inside building identified in Photo 31, MCC

Photo 33 - View of building where you can see records inside. Building is in east part of MCC Recycling area. Photo 32 was taken looking inside building at window with screen leaning against wall, MCC

Photo 34 - View of discharge area on ground near pump house, MCC

Photo 35 - View of discharge area next to pump house.

Photo 36 - View looking North at CCC (also "2 tank") You can see that we have propped the structure down about 2 feet. Seep at NW corner has been stopped.



7/9/10

Photo 37 - View of sand filters MCC

Photo 38 - View of NW corner of CCC. Note absence of surface seep.

Photo 39 - View of surface seep area. No seep is occurring now.

11:15 AM - collecting these photos I met with Adam and told him about the lift station discharge. He said that he would look in to it. I also told him about the sand pile discharge. During the afternoon, Adam and I went over to the second lift station area. It has stopped discharging and since there doesn't seem to be any rain in the forecast, he decided to leave it alone till morning. I agreed, because who knows where to put it? We also looked at CCC and he told me that he would have it pumped down at least 2 feet to prevent it from reaching the hole.

17:30 I left site and went to office.

7/10/10

07:45 Arrived at office at 07:15. Arrived at site at 07:45. Looked at MCC Recycling area. The flood level is just below the hole. No seepage is occurring outside of the structure. The flood level at the Lift Station #1 has fallen about 2 inches and is not discharging. I collected the following photographs:

Photo 01 - View of new trap on roll-off box in parking lot.

Photo 02 - View of new traps on roll-off boxes next to sand pile.

Photo 03 - View of workers installing new boxes on roll-off box.

Photo 04 - View of new traps on unmarked roll-offs in far north part of facility.

Not
used

D7

Al

Test

7/10/10 - Notes by Terry Anderson (continued)

Photo 05 - View of secondary containment area around
bioreactor. View is of hill in containment wall at NW
corner of bioreactor. There appears to be a small
seepage from the secondary containment area.

Photo 06 - View looking south at roll-off boxes to the
east of the bioreactor.

Photo 07 - View of workers (ERRS team) placing new
bars and tarp on roll-off boxes. Frac tanks #A2891C
and A2895C were transported to site by the ERRS team
and have been filled from water collected onsite. These tanks
are located at the far north part of the parking lot.

Photo 08 - View of frac tanks #A1181 and #A2801C
parked near outer curb in parking lot.

Photo 09 - View of workers placing new tarp on roll-off box.

Photo 10 - View of ~~frac~~ frac tanks #A1331C and
#A913B located near trade bays.

Photo 11 - View of frac tank #A1089 that is parked just
south of #A1181 and #A2801C. Frac tank #A2800B is parked
just south of #A1331C and #A913B.

Photo 12 - View of frac tank A911B (park just south
of #A1331C and #A913B).

Photo 13 - View looking south at frac tanks #A2853,
#A2795B, and #A403NO. Frac tanks #A2850
and #A581C are parked behind these three
tanks (to the south).

Frac tanks labeled A1477B and A1475B are parked in
the far north part of the parking lot. They were here
when the EPA and I entered the facility on July 2,
2010.

Photo 14 - Over at the MCC recycling area. Photo 14
is view of frac tanks #A1881RBC and #A2867C
parked near the CCC.

Photo 15 - View of frac tank #A2858C parked
near the CCC.

NOTED
BY
[Signature]

7/10/10

Notes by [Signature]

Photo 16 - View of pump and hoses that was used to transfer fluids from the outfall area of the CCC to the main control area. Note - no signs of surface seepage except for a rust colored stain.

Photo 17 - View of outfall area of CCC.

Photo 18 - View of outfall area of CCC.

Photo 19 - View of "Lift Station #1".

Photo 20 - View of "Sludge Thickener Clarifier".

Photo 21 - View of "Sludge Thickener Clarifier".

Photo 22 - View of locked gate and signs of MCC Recycling area - east half.

ERRS and START teams are performing the following today -> placing new bays & ramps on roll-offs -> hazardous waste (inventory of waste drums).

15:20 There are 17 frac tanks located on the USOR and MCC Recycling Area. We have filled all 17 with liquids from each of the two sites.

Frac tanks are arranged as follows:

South Parking Lot	North Parking Lot	MCC Recycling
A985P	A2895C	A1881RBC
A581C	A2891C	A2867C
A403ND	A911R	A2858C
A2798B	A913	
A2853C	A1331	
	A1089C	
	A2801B	
	A2800B	
	A1181B	

15:30 Donna Phillips visited site.

16:00

I did a walkabout. CCC outfall has been pumped down significantly. No releases. TJA

Not
Used by
J7

7/10/10 USOR ER Site Notes by Terry Andrews

17:30 I left site

7/11/10 - day off, no activities

7/12/10

0800

I arrived at site. Adam reported no problems. Situation is as it was on Saturday. His team's plan to finish the roll-off rivers and they are going to collect samples from some of the large structures over at MCC Recycling. Full teams are here (ERRS and START). From 8:45 to 9:30 I did a site walk and collected the following photographs:
Photo 01 - Roll-off box 1801 in SE part of site, looks like it is still leaking

Photo 02 - Close up of leak at Roll-off box 1801

Photo 03 - Drum positioned under leak at Roll-off box 25-93, also located in SE part of USOR site

Photo 04 - View of parking lot pond. Note new traps on roll-off boxes

Photo 05 - view of new trap on boxes

Photo 06 - see dust pile is still discharging a fluid that is running into parking lot pond

Photo 07 - View of seepage from Sew Dust pile

Photo 08 - View of oily bags

Photo 09 - View of oily bag in front of secondary treatment (West pressure)

Photo 10 - view of water/oil in secondary containment of south part of AST area

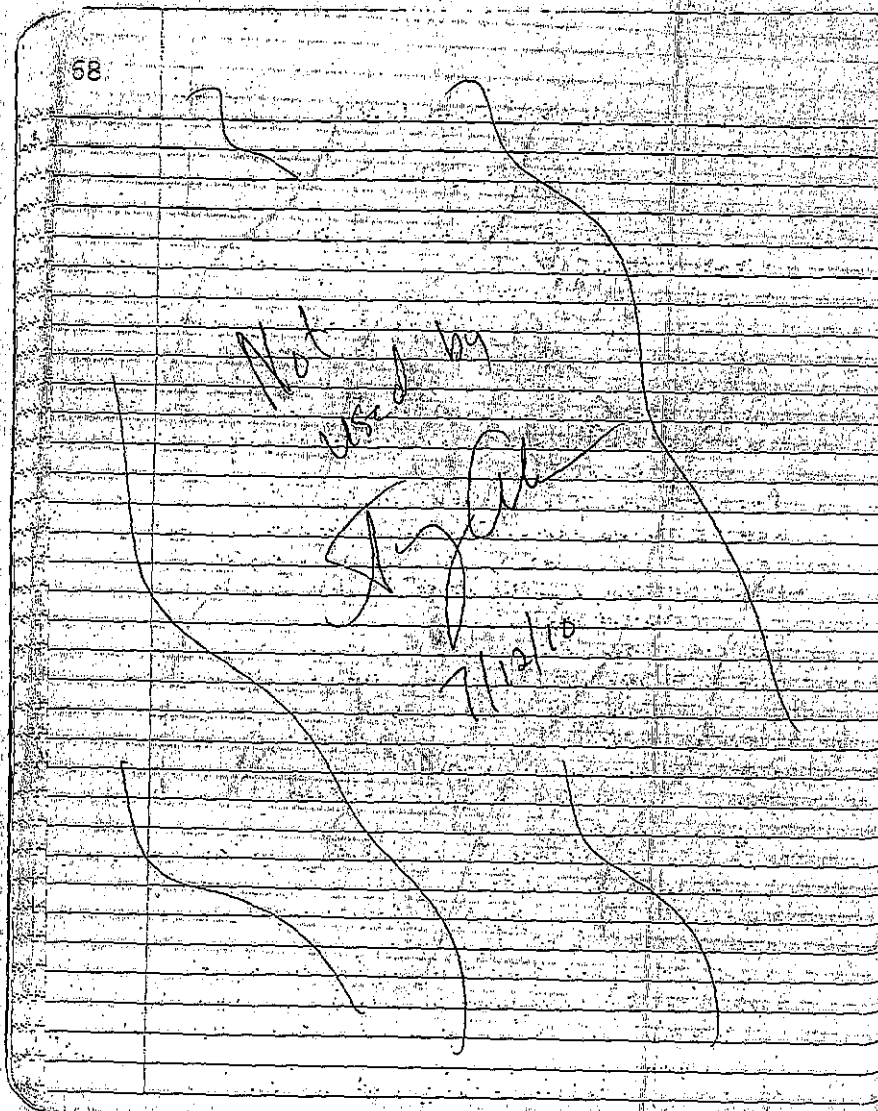
Photo 11 - View of oily water in South AST area

Photo 12 - View of truck unloading area

Photo 13 - View of truck wash / chemical unloading area

Photo 14 - View of secondary containment wall around the bioreactor - NW corner, shows small seepage from containment area

Photo 15 - View of secondary containment seepage



7/12/10 - Continued Notes by Terry Andrews

Photo 16 - View of north tank secondary containment area

Photo 17 - View of tank farm roll-off parked along curb
out at the AST area

Photo 18 - View of MCC Recycling, west gate. It
is locked and has warning signs

Photo 19 - View of MCC Recycling, Chlorine Contact
Chamber (CCC)

Photo 20 - View of Unit Station #1, MCC Recycling

Photo 21 - View looking south east from digester area,
MCC Recycling. Houses are near residences to site.

Photo 22 - View looking south west from digester area,
MCC Recycling

Photo 23 - View looking west from digester area,
MCC Recycling

Photo 24 - View of rest digester

Photo 25 - View looking north from clarifier #1, MCC

Photo 26 - View of chemical storage area offsite

looking north east from clarifier #1, MCC

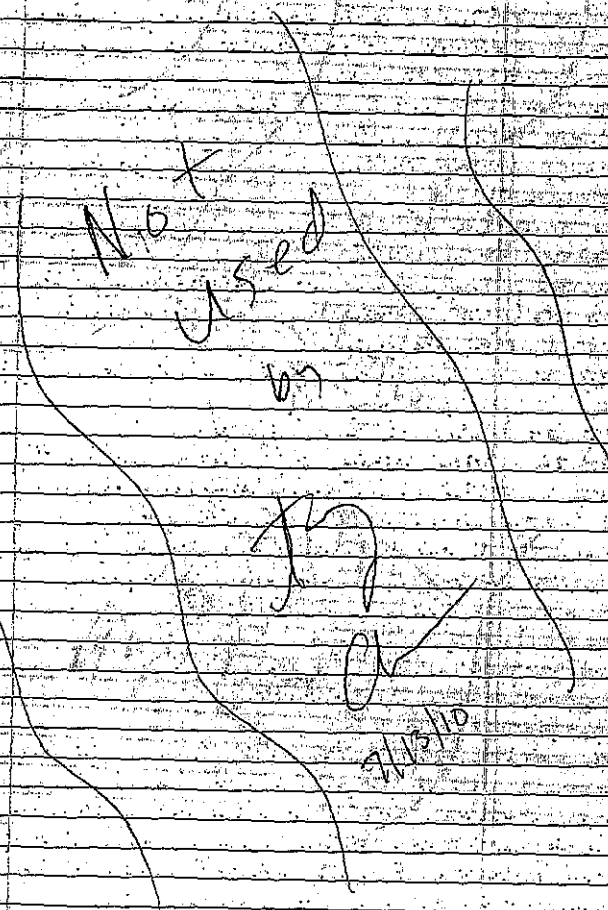
10:00 Around 10, I left the site. Around 5:00 PM, I called
Adam to see how things were going. He reported no
problems, no incidents, no visitors. Enforcement
files for Reg. 6 (Kelly + Cindy) were there and
were looking at documents. He expects to get analysis
from Eric later tomorrow.

7/13/10

10:00 Lem and I arrived at site ~ 8. I took him on a
site walk. Site looked good with no changes from yesterday.
In the drum storage area (waste), the START team was
performing an inventory of the drummed waste. I took
several photographs of drums that were leaking or had
crystals growing on them (from leaks or spills).

Photo 01 is of drum with white crystals on side
of drum

T. J. Cas 7/13/10



7/13/10 Notes by Terry Andrews (continued)

Photo 02 is of drum with residue on outside of drum

Photo 03 is of precipitate from drum

Then we looked at the bioreactor. I took several pictures here while the sun was on the west side of the reactor.

Photo 04 is of the west side near the southeast corner of the bioreactor.

Photo 05 is of the bottom of the southeast corner of the reactor (west side).

Photo 06 is of the west bioreactor (looking north).

Photo 07 is of the east bioreactor (looking north).

0900 We met Gary Fagarty and walked around the USOR and then the MCC Recycling Properties.

Photo 08 is of the concrete wall located at the large gate valve that allows water from a channel leading from the clarifier #2 to enter the CCC. A small flow of water could be seen flowing over the concrete wall in the channel. The gate to the CCC appeared to be open. MCC

Photo 09 is of gate between clarifier #2 and the sand filter. It appears to be working and is closed (water color is different). MCC

Photo 10 is of the headworks. View on top looking south. MCC.

Photo 11 is of the bidding filter. View looking southwest from top of headworks at MCC.

Photo 12 - same as photo 11

Photo #08 13 - view looking south from top of headworks at MCC Recycling

Photo 14 - view looking northwest from top of headworks at MCC Recycling

Photo 15 - view looking northwest at USOR from top of headworks; west half; MCC Recycling

1130 We rode on bus and left the site.

Terry Andrews 7/13/10

Not
Used

by

[Signature]

7/13/10

7/13/10 - USOR field notes, continued

1700

Talked to Adam Adams. He told me everything was going well. Hopes to get fire tank analysis tomorrow. No incidents, no problems.

7/14/10

0730

I arrived at site, visited with Adam, did a quick site walk at USOR. Site looks like it did yesterday. Small discharge from smallest pile. Small pond in pit. Adam told me about finding a rail drum with 2 basic drums.

0815

Donna Phillips and Linda Vasco, TCEQ arrived and I gave them a site down site tour. I collected the following photographs during the tour. They left at 9:30. Photo 01 - view looking at loading bay with stacked drums of hazardous waste (marked as flammable liquids). Drums are leaning badly.

Photo 02 - view of tank sweeping from holes. Tank is located along the east side of the tank farm.

Photo 03 - view of white precipitate in pipe valve from tank.

Photo 04 - view of leaking roll-off.

Photo 05 - view of roll-off that is leaking in photo 04.

Photo 06 - view of computer & modem that we think is connected to security cameras.

Photo 07 - view of drumming in USOR lab.

Photo 08 - Another angle of drumming in USOR lab.

Photo 09 - view of possible board in laboratory.

10:30

I then checked out the Mac Recycling site. Conditions were unchanged from yesterday. The flood level in the atfill area of the CCG was approx 3 feet below the weir structure.

11:00

I left the site.

7/15/10

In office, checked with Adam in the morning and at 5:00 PM. Drum inventory going well. 409 drums have been inventoried so far. He mentioned that *[Signature]* 7/15/10

Not Used
by

TR
7/15/10

7/15/10 - USOR ER Notes by Terry Andrews

some guy (dressed as a moving company employee) dropped by the office this afternoon and told Adam that he would be back tomorrow to pick up office furniture and boxes of files. He gave Adam a letter that is signed by Klaus Grottel (as President of USOR) that authorizes him to remove the items from the USOR and MCC properties. The letter says to remove boxes of files that are not related to MCC Reapling or USOR. I called Charmine Beckens and Jennifer Wheeler to let them know. I also talked to Kelly Parker and Nicole Baile. Jennifer emailed me a copy of the TRO (which I believe is still in effect as it is signed on July 2). Jennifer told me that their Attorney, Mr. Rock Owens, will try and get an extension to the TRO tomorrow.

7/16/10

0610 I arrived at site. Gates are locked with armed Security present. I did not enter but returned to office to pick up a copy of the TREC Permit.

0700

I entered site. ERS team has 6 personnel on site. START team has 3 personnel on site. Security guard left at 0700. Adam arrived at 0705. I talked to Jennifer Wheeler about the TRO. She sent an email a few minutes later after talking to Rock Owens that confirmed. I then took several photographs of the office.

0800

I posted a copy of the TRO on the inside of the guard shack. Just inside the door I found a piece of paper entitled Employee Contact List. The following names and phone numbers were listed on the paper:
Bernard - cell # 713-376-7517
Christine - cell # 281-684-9408
and others. I took a photograph of the contact list.

7/16/10

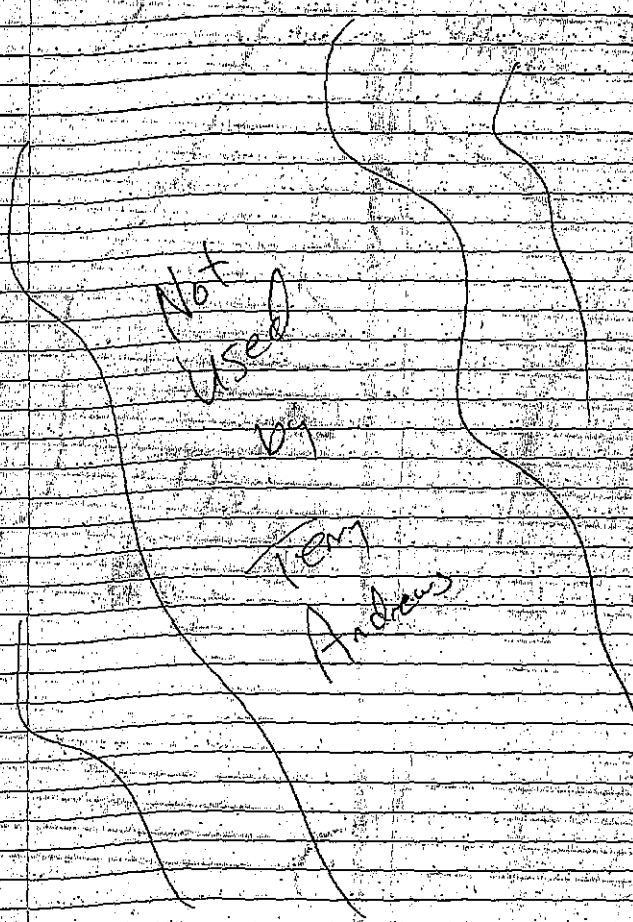
Not
Used

by

7/16/10

7/16/10 USOR ER Notes by Terry Andrews

- 0900 I did a walk around the USOR site. I collected numerous photographs.
- 1100 Adam told me that they have a drum count of 800. Approx 200 of them have hazardous waste labels. I went out and took numerous photographs. They have tried to spread them out so they can inventory and segregate them. They have checked pk of numerous drums to see how reliable the labels are. They have found many inconsistencies between the labels and the drum contents.
- Photos 1-6 are of the northern office and the boxes of files there. There are also two file cabinets with labels marked manifests.
- Photos 7-17 are of the rooms in the USOR office.
- Photo 18 is of the employee contact list that was on the floor of the ground shack.
- Photo 19 is of the entrance sign to USOR.
- Photo 20 is looking NW at the USOR office building.
- Photo 21 is of the ground shack with the TRD taped on the door.
- Photo 22 is of TRD.
- Photo 23 is of pump station in parking lot - approx 50 feet SW of SW corner of office building.
- Photos 24 and 25 are looking at totes stored in the warehouse at USOR.
- Photos 26 and 27 are looking at black stored water in loading area - North part of USOR facility.
- Photos 28 and 29 are looking at sludge and leak coming from roll-off box parked next to "truck wash".
- Photo 30 is of liquid in "truck wash".
- Photos 31-34 are of water in north and south tank farm - secondary containment areas.
- J-8 CW
7/16/10



7/16/10 - USOR ER Notes by Terry Andrews 79

Photo 35 - looking at leaking roll off next to truck with

Photo 36 - view of oil floating in water in flooded secondary containment area (north end)

Photo 37 NW corner of USOR warehouse.

Photo 38 view looking north at NW corner of warehouse.

Photo 39 - View looking NW at the SE corner of the bio-reactor. USOR

Photo 40 - View looking South from bio-reactor.

Photos 41 and 42 - View of drums stored in warehouse for inventory project. USOR

Photo 43 - View of room next to laboratory that is filled with single containers - USOR

Photos 44 & 45 - view of laboratory - USOR

Photo 46 - view of stormwater retention pond

Photo 47 - view looking northwest at bio-reactor

Photos 48 - 66 - Various drums stored in USOR warehouse. Drums have been stored so labels could be read and drum stability could be assessed.

Photos 67 - 69 - Views of stormwater retention pond.

Photo 70 - View of electrical box with lockout tag (placed there by ERS team)

Photos 71 & 72 - View of Secondary containment area of South tank farm

Photo 73 - View of truck bays with liquid.

Photos 74 - 76 - Views of drums and totes in flooded truck bay / loading area. Most are labeled as flammable liquids. J. [signature] 7/16/10

Not
Used

DM

Tom
Andrews

7/16/10 - Note by Tom Andrews
Photo 77 - View of sand pit - seems to
have reduced discharge from two days ago.

It appears to be drying out.
Photo 78 - View of office building and
parking lot curb. View looking south.

15:00 I left site. I checked in with Adam at 18:00. All good.

7/16/10 - Sunday

I checked in with Adam at 0800 and 1930.

7/18/10 - off, no messages from Adam - phone calls

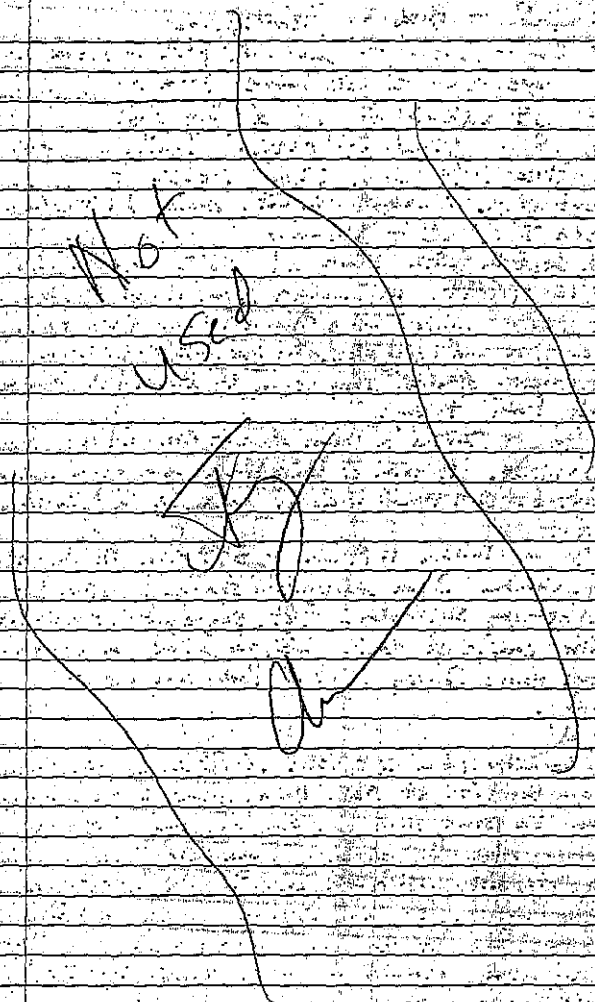
7/19/10 - Talked with Adam around 5:00 PM. He
said everything was going well. No incidents or visitors.
Still segregating drums. They began to dispose of liquids
in free tanks today.

7/20/10 - Talked to Adam ~ 5:00 PM. He reported
no problems. A total of 470 drums have been sampled/
hercatted. 24 truck loads of water/liquid disposed
so far.

7/21/10 - Talked to Adam ~ 5:00 PM. He reported
no problems. Drum segregation should be done by
end of day Saturday. Total segregation should take
another couple of days. 185,000 gallons has been disposed
so far. Hunt County started their own security
today.

7/22/10

Checked with Adam at 0800. Everything is going well.
Went out the site at 1:30. Adam Adams is there for the
EPA. The start team (Derrick Cobb and Jeff Greer)
were busy sampling and segregating drums. The EES team (Gary
Babb, Stephanie Lavin, and 4 workers) were busy
pumping liquids from the 2-tank (CCE) area at MCC.
The free tanks at MCC have been pumped out. Only
two free tanks remain at USOR (except for the 2
that were there when we first got there). 7/22/10



7/22/10 Notes by Terry Anders

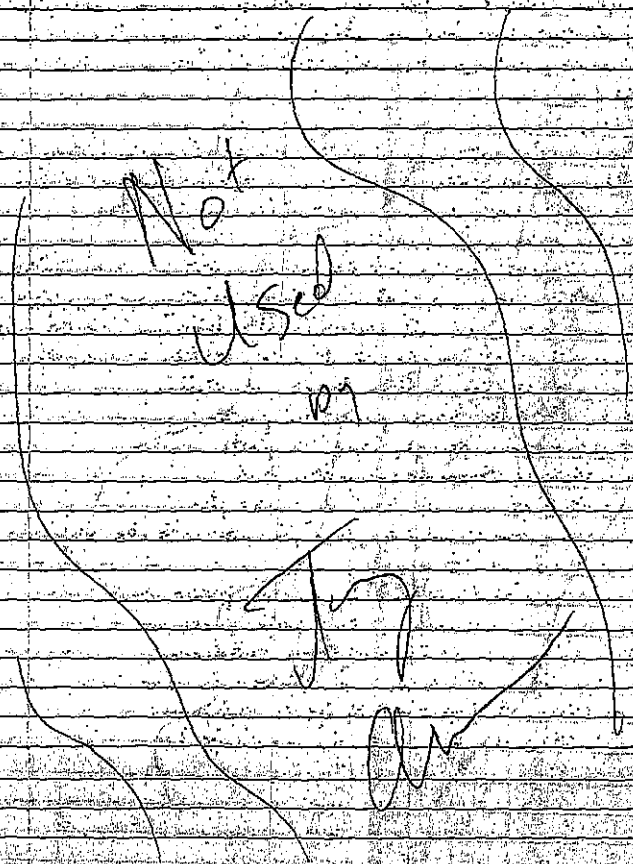
From 1:57 to 2:30 I took 28 pictures of the USOP & MCC site. I then met with Adam. I told him that the sand dust was still discharging and there was sludge next to the roll off. I left the site at 2:45.

7/23/10

Picked up Bob Patten at airport. Arrived at the site at 08:30. Adam finished the drum segregation. Total of 765 drums. Toured site until 10:50. Left site at 10:50.

Photos taken on 7/22/10

- 01 - View of parking lot impoundment after several rains. No sheens or oil. View looking north. Note covers on all roll off. Free tank has low PH water.
- 02 - View of parking lot at USOP looking south at 2 of the 3 free tanks are visible.
- 03 - View of drums placed on plastic.
- 04 - another view of drums on plastic.
- 05 - view of stormwater retention pond.
- 06 - view of leachate from sand dust pile.
- 07 - Free tank containing low pH water - to be disposed properly or treated.
- 08 - View of container in sludge press area.
- 09 - View of drums in sludge press area.
- 10 - View of south tank from containment area.
- 11 - View of sheen on water in containment area.
- 12 - View of water and sludge in containment area.
- 13 - View of water and oil and sludge in containment area.
- 14 - View of tank in area.
- 15 - View of north tank from containment area.
- 16 - View of north tank from containment area.
- 17 - View of northwest corner of tank area.
- 18 - View of wall on north end of tank from
- 19 - View looking south at parking lot area. TJA



7/23/10

Notes by Terry Anderson

Photos taken on 7/23/10, continued:

- 20 - View of #1 lift station at MCC
- 21 - View of #1 lift station at MCC
- 22 - Same as 21
- 23 - View inside fan tank at Bently held - tank liquids
- 24 - pumping fan tank at MCC
- 25 - pumping fan tank at MCC - Eagle SWs personnel and Eagle SWs tank
- 26 - View of outfall area of Z-tank (CCC)
- 27 - View of hole in CCC
- 28 - back of tank

7/24/10

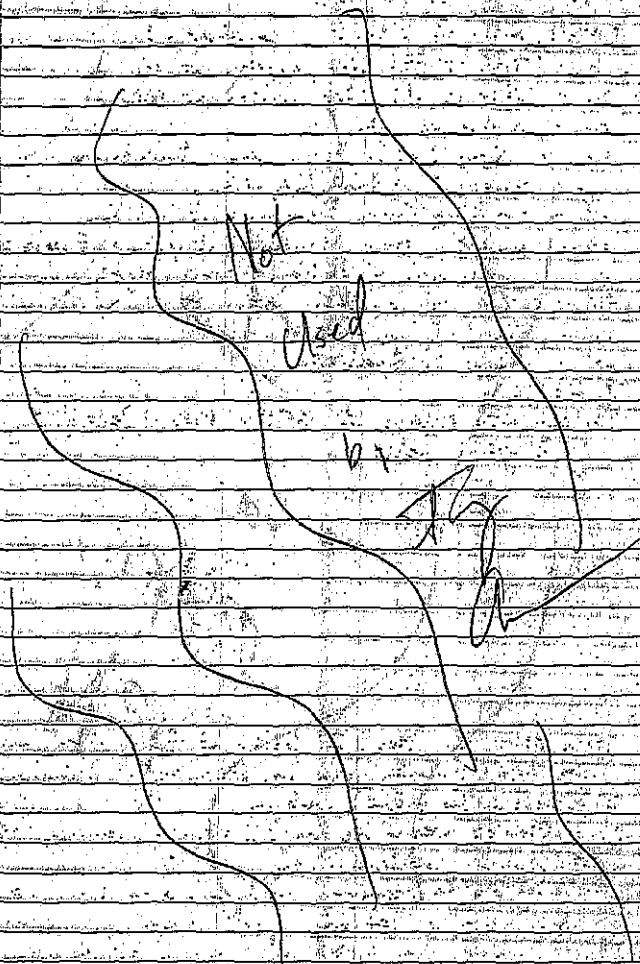
Checked with Adams at 05:00 PM - everything is going well

7/28/10

Arrived at site at 01:08. Rick Townsend (Recher-713-838-2752) and J.C. Cowgill (Recher-713-838-2752) arrived just as I did. Adams and I took Mr. Townsend and Cowgill for a tour of the USOR and MCC facilities. We looked at the offices and all of the waste areas. We concluded the tour at 2:50. The EPA continued work after the tour.

From 3:25 to 4:00, I looked at the problem with acid water leaking from the secondary containment area. I collected the following photographs:

- 01 - View of area where low pH water is leaking from acidic secondary containment area
- 02 - View inside secondary containment area from which low pH water is leaking - NE corner
- 03 - View looking west at east wall of acidic secondary containment area - leak is occurring at right end of wall



7/28/10 Notes by Terry Andrews
of call.

04 - View of sump in truck bay that is being used
to store low pH water.

05 - View of sump in truck bay with low pH
water.

I left the site ~ 4:15

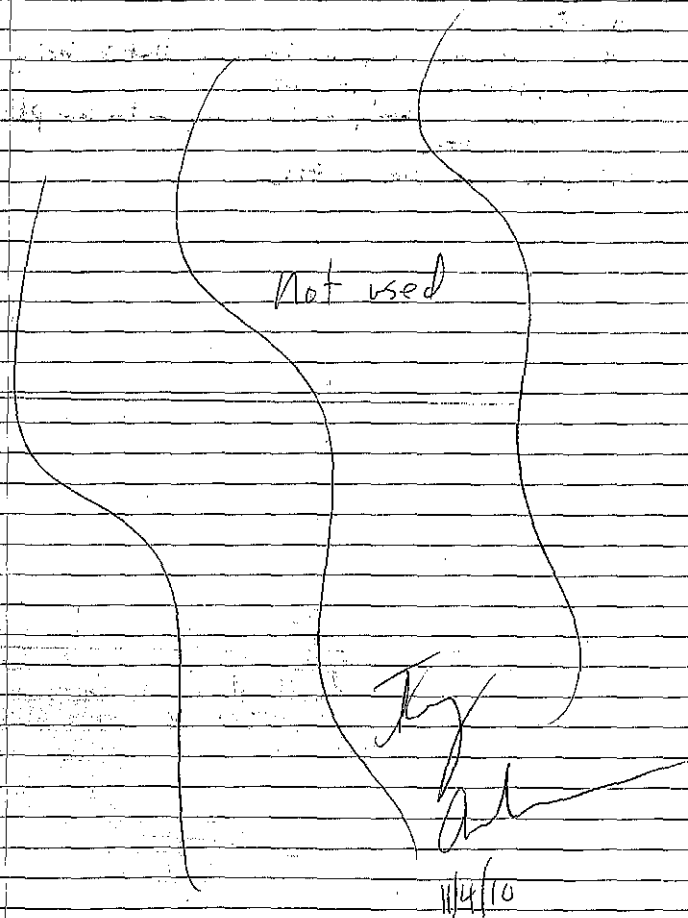
7/29 - 8/1

I did not visit the site. I talked to
Adam everyday around 5:00 PM. They finished
work at the sites on 7/31/10. No work at
the site on 8/1.

8/2 - talked to Adam ~ 5:00 PM. He
confirmed that the ER was finished at
the site. All equipment was removed today
and everything was locked up and secure
when they left.

8/9 - 10:15 I walked around the USOR
site with Lam Tran and at 10:40 we walked
around the MCC Recycling. I took 39 photographs
at the USOR site and 10 photographs of
the MCC Recycling site. I saw no discharges
at either site and all gates and doors are
locked and secure. Left the MCC Recycling
site at 11:00 AM.

TJ
8/9/10

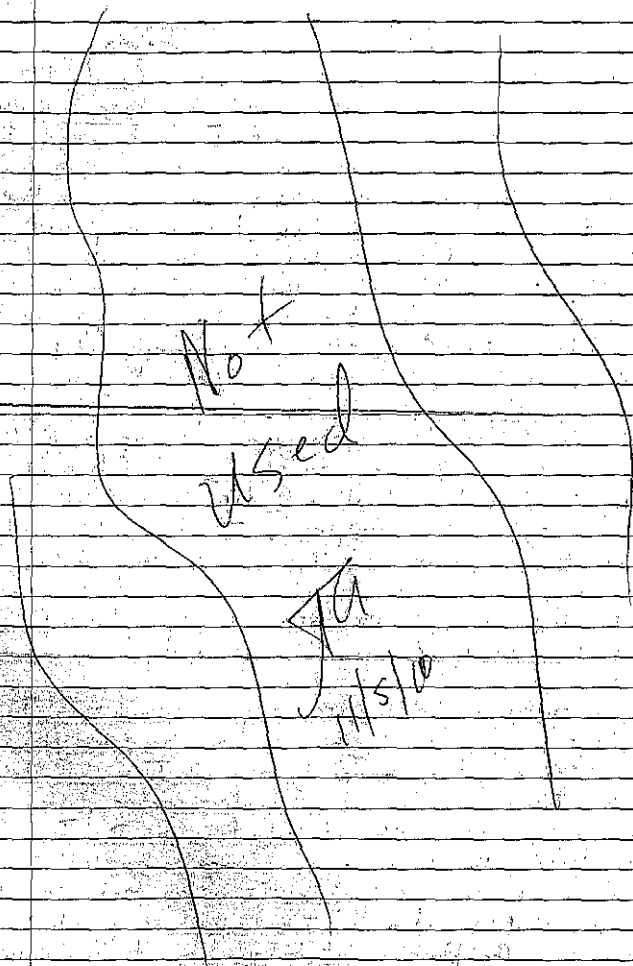


Nov. 4, 2010 - At 2:00 PM, after receiving a phone call from Jennifer Wheeler, there's County that some oil was in the bar ditch at the base of the driveway at USOR, Lam and I went out to the site. Upon arriving at the site we could see oil stains leading from the parking lot area, down the front driveway, and then oil on water puddles in the bar ditch located to the north and south of the driveway. The oil stains in the ditch only went ~ 30 feet north and appeared to be blown there by strong north wind. Oil stains in bar ditch led to Vince Bayou.

There was a guy sitting in his pickup and fishing. I asked him how it was going and he said that he had caught one catfish. I asked him if he was going to eat it and he said that I was looking at "Supper". I took 10 photographs of the oil release. In one of the photos, the last one, you can see the guy fishing next to his truck. The other two people walking across the road were also fishing.

Nov. 5, 2010 - After receiving an email from the Receiver saying it was OK for me to enter USOR and MCC Recycling, ~~and~~ Lam and I visited the sites. There was a lot of water in the parking lot at USOR with oil floating on it. The water level in the secondary containment where all the ASTs are located was approx. 2 inches below the top of the containment wall. It looked very oily. The oil in the parking lot looked like it had come from the bay area next to the acid tank.

TJ 11/5/10



Nov. 5, 2010 - We also saw that the bioreactor was leaking from several small holes and the tank from secondary containment was also leaking from several holes in the north wall. All of these leaks were going onto the ground. We then looked at MCC Recycling. We did not see any releases although the liquid level in the Chlorine Contact Chamber was very near the hole at the northwest corner of the structure. We left the site at 10:15. I took 71 photographs.

[Signature] 11/5/10

January 28, 2011 - After receiving a call from Adam Adams, who said that he had received a call from Harris County who said that releases may be occurring at the USOR, Olga Salinas and I visited the site. As usual, the site is abandoned and locked up. The grass looks like it was recently mowed. The parking lot impoundment is full. We didn't see any sheens or oil in this liquid. The Stormwater Pond is full and we saw it discharge to the ditch located along the west side of the warehouse. We measured ~ 8-9 inches of freeboard in the treatment area secondary containment and 5-6 inches of freeboard in the tank farm sec containment. Bay area 34, 35, and 36 are pretty full and have about 3-4 inches of freeboard. *[Signature]* 1/28/11

National Brand CHEMISTRY NOTEBOOKS

Blue Cover			
Item No.	Numbered Pages	Ruling	Size
Item No. 43-571	120	Record	9 1/4" x 7 1/4"
Item No. 43-581	120	Record	11" x 8 1/2"

Product Guarantee

Rediform is committed to providing you with quality products, and will gladly replace any product which does not provide complete satisfaction. We also welcome your comments and suggestions. Please send your correspondence with product code to:

Rediform Inc.
555 Airline Drive • Coppell, TX 75019

Made in Mexico



RECYCLED CONTENT

Paper Contains a minimum of 30% post-consumer fiber.



ACID-FREE PAPER

Paper does not yellow or deteriorate over time.

1

January 4, 2011, ^{around 10:00 AM} Olga Salinas and I made a site visit to USOR and MCC Regaling. There had been a big rain that occurred last week and I wanted to see how the site looked. The USOR facility was abandoned, nobody there, and the fence and gates look good - everything is locked up. From a trash bucket located near the office building, it looks like the site got a major rainfall last week - I measured 7 inches of water in the bucket. There was approx. 7-8 inches of water in the sec. containment areas. The parking lot area was completely full. No oil sheens or oil on the parking lot water. Bay area 34-35, was about 1/2 full of water. It has ~ 2 feet of freeboard. We then left the site - released the gate. The MCC facility was also locked up. We walked to the Chlorine Contact chamber. The liquid level was above the hole and black colored liquid was discharging from cracks in the concrete road next to the NW corner of the chlorine contact chamber. The liquid was running across the road into the northwest part of the site, where there is soil and vegetation. I called Adam Adams, EPA and told him the situation. We checked the rest of the site. Didn't see any other releases - we left the site - locked the gate at 11:45 AM.

Tracy Adams
1/4/11

PHOTOGRAPHS TAKEN ON JULY 2, 2010, TZA



tceq070210-02



tceq070210-04



tceq070210-01



tceq070210-03

PHOTOGRAPHS TAKEN ON JULY 2, 2010, Tja



tceq070210-06



tceq070210-08



tceq070210-05



tceq070210-07

PHOTOGRAPHS TAKEN ON JULY 2, 2010, *Tyler*



tceq070210-10



tceq070210-12



tceq070210-09



tceq070210-11

PHOTOGRAPHS TAKEN ON JULY 2, 2010, Tyle



tceq 070210-14



tceq 070210-14



tceq 070210-13



tceq 070210-15

PHOTOGRAPHS TAKEN ON JULY 2, 2010, Tya



tceq 070210-18



tceq 070210-20



tceq 070210-17



tceq 070210-19

PHOTOGRAPHS TAKEN ON JULY 2, 2010, *Tracy*



tceq070210-22



tceq070210-24



tceq070210-21

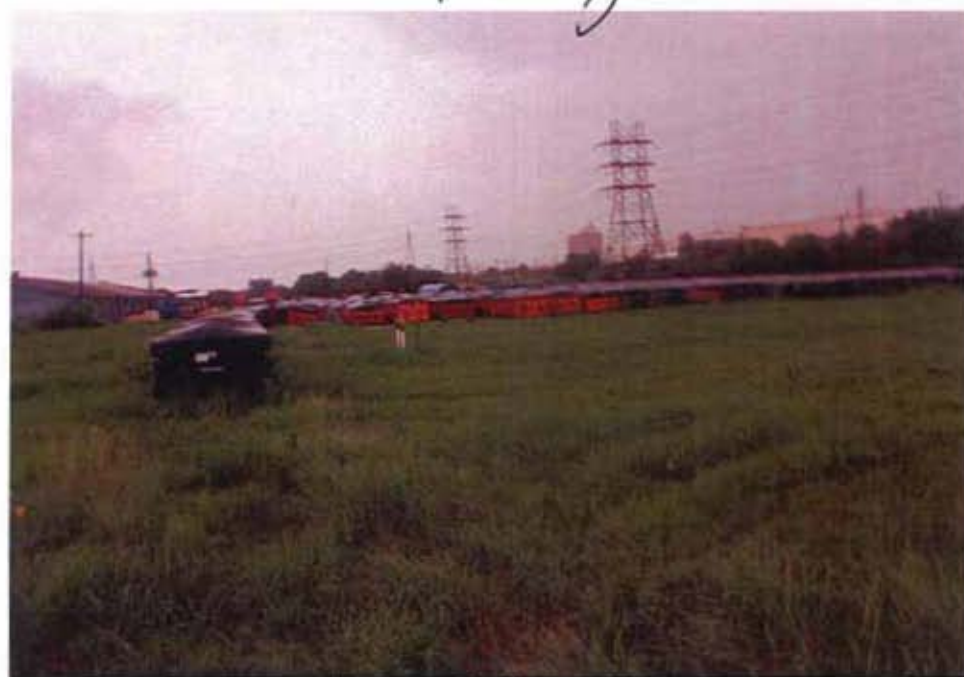


tceq070210-23

PHOTOGRAPHS TAKEN ON JULY 2, 2010, TJA



tceq070210-24



tceq070210-28



tceq070210-25

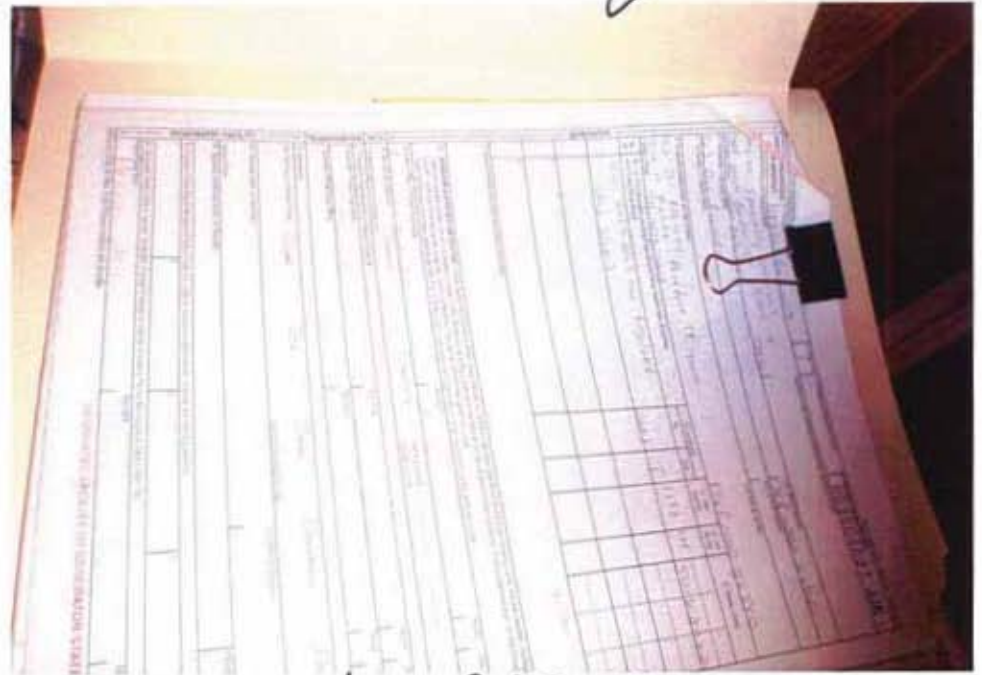


tceq070210-27

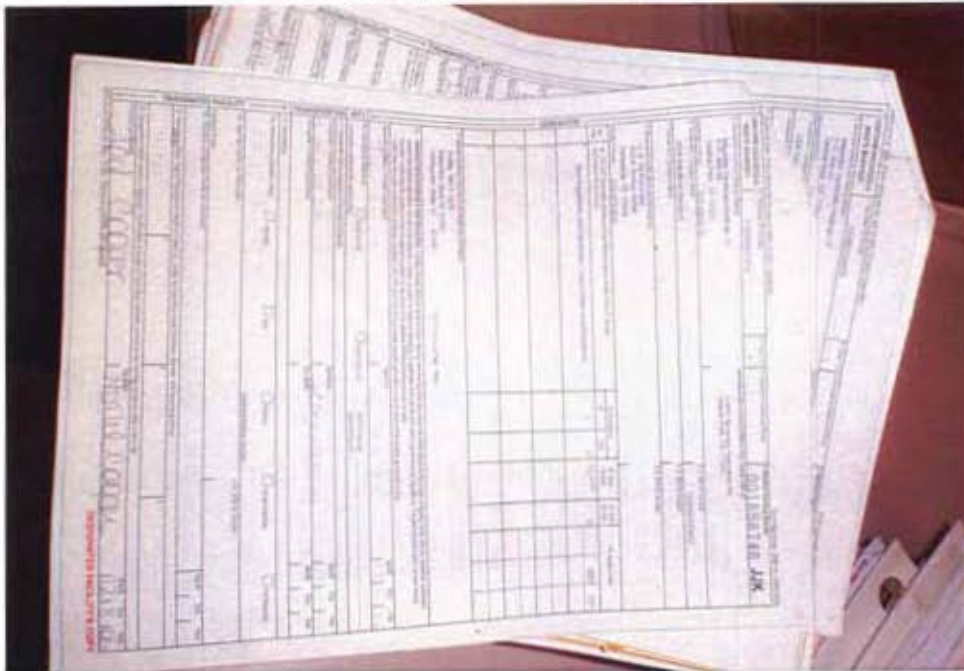
PHOTOGRAPHS TAKEN ON JULY 2, 2010, TJC



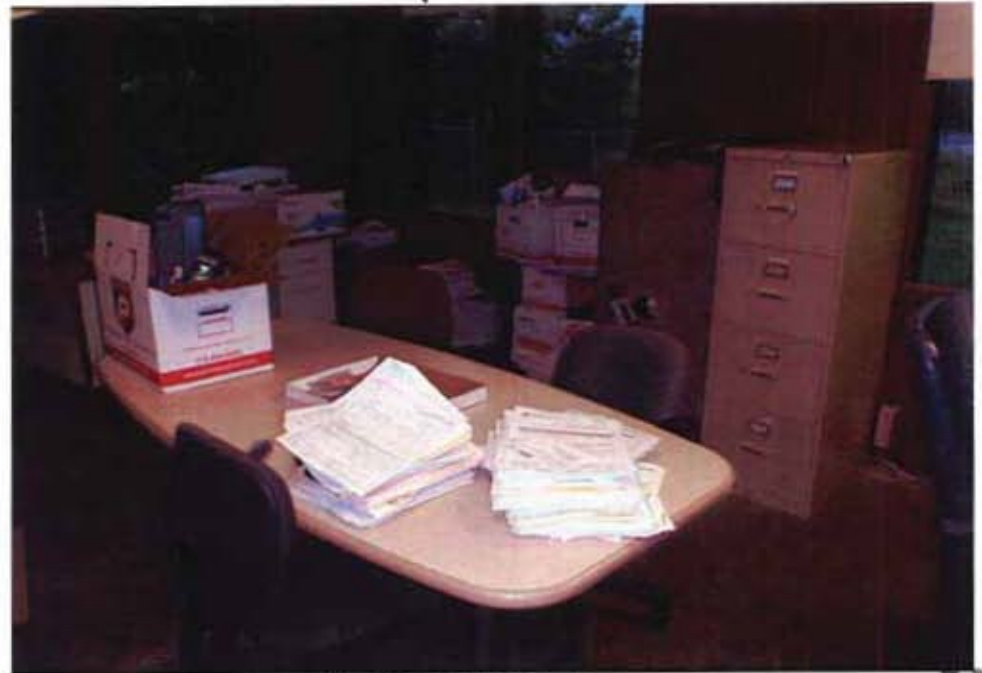
tceq070210-30



tceq070210-32

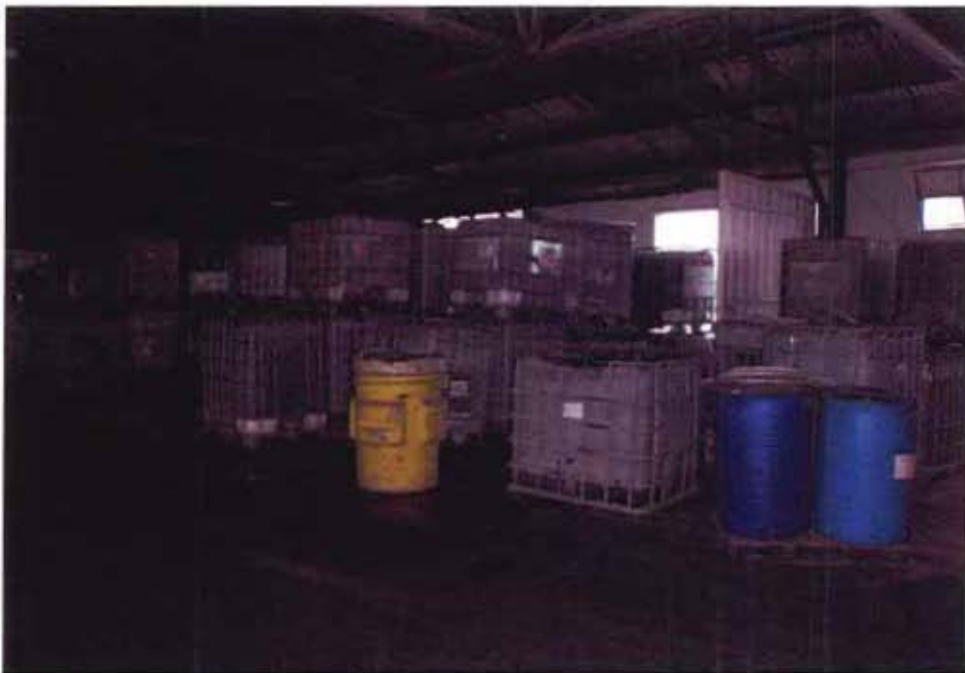


tceq070210-29



tceq070210-31

PHOTOGRAPHS TAKEN ON JULY 2, 2010, Tyla



tceq070210-34



tceq070210-36



tceq070210-33



tceq070210-35

PHOTOGRAPHS TAKEN ON JULY 3, 2010, TJC



tceq070310-02



tceq070310-04



tceq070310-01



tceq070310-03

PHOTOGRAPHS TAKEN ON JULY 3, 2010, TjL



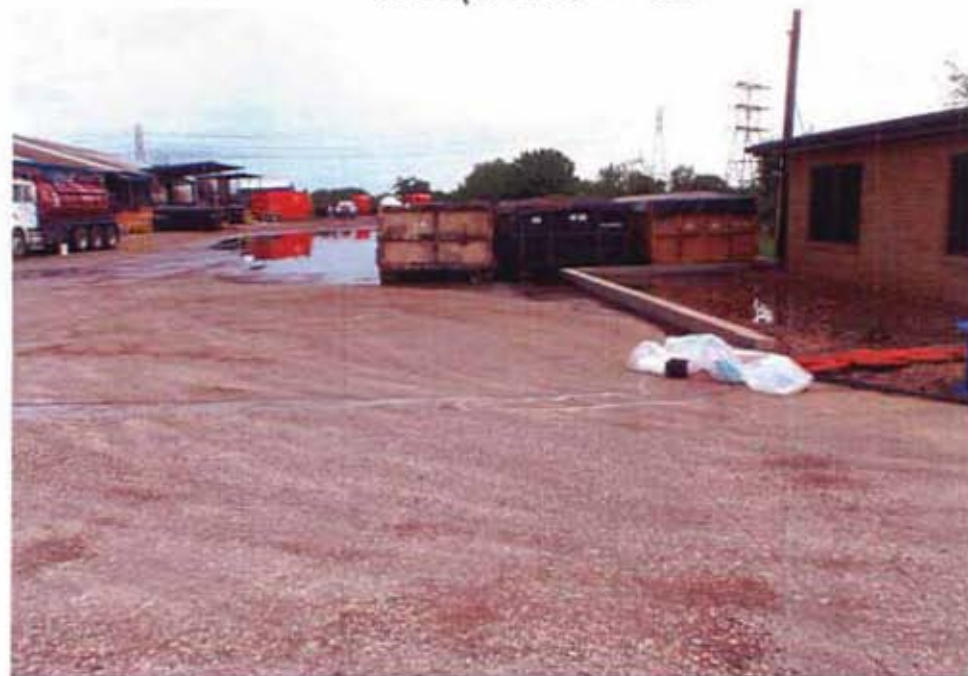
tceq070310-06



tceq070310-08



tceq070310-05



tceq070310-07

PHOTOGRAPHS TAKEN ON JULY 3, 2010, Tyla



tceq070310-10



tceq070310-12



tceq070310-09



tceq070310-11

PHOTOGRAPHS TAKEN ON JULY 3, 2010, TJC



tceq 070310-14



tceq 070310-16



tceq 070310-13



tceq 070310-15

PHOTOGRAPHS TAKEN ON JULY 3, 2010, TJA



tceq070310-18



tceq070310-20



tceq070310-17



tceq070310-19

PHOTOGRAPHS TAKEN ON JULY 3, 2010, TJC



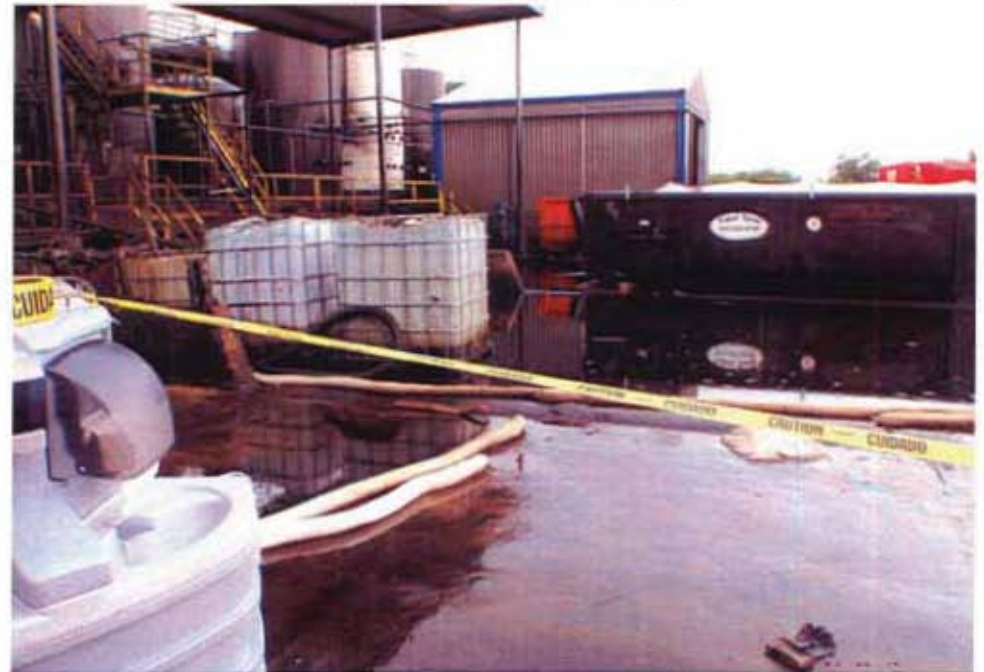
tceq 070310-22



tceq 070310-24



tceq 070310-21



tceq 070310-23

PHOTOGRAPHS TAKEN ON JULY 3, 2010, TJC



tceq070310-26



tceq070310-28



tceq070310-25



tceq070310-27

PHOTOGRAPHS TAKEN ON JULY 3, 2010, TJA



tceq070310-30



tceq070310-32



tceq070310-29

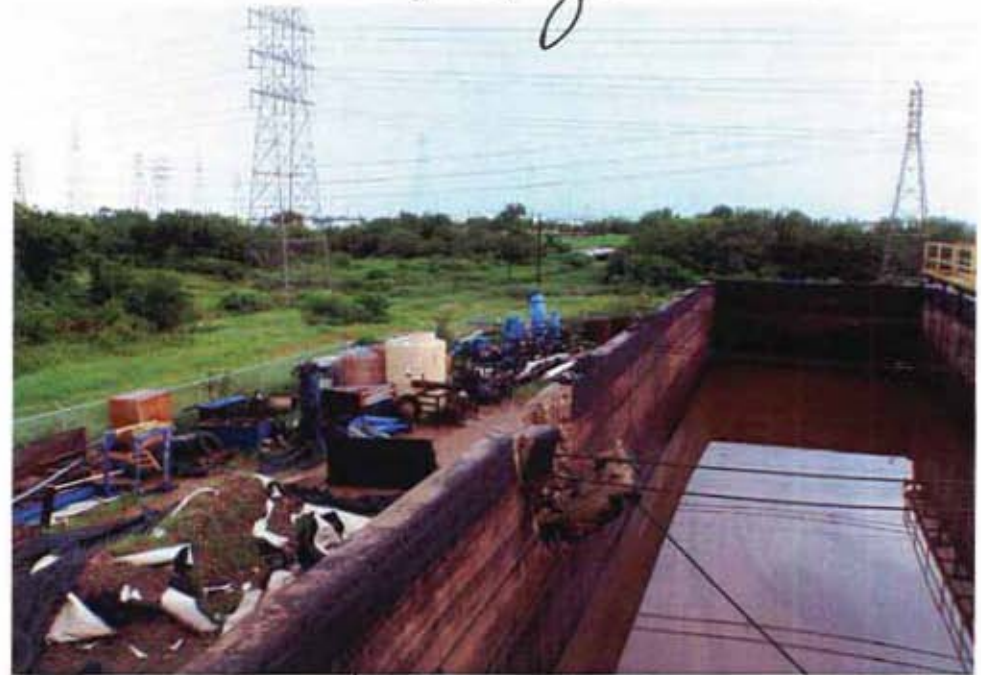


tceq070310-31

PHOTOGRAPHS TAKEN ON JULY 3, 2010, TJC



tceq070310-34



tceq070310-36



tceq070310-33



tceq070310-35

PHOTOGRAPHS TAKEN ON JULY 3, 2010, TJC



tceq070310-38



tceq070310-40



tceq070310-37



tceq070310-39

PHOTOGRAPHS TAKEN ON JULY 3 2010, TJC



tceq070310-42

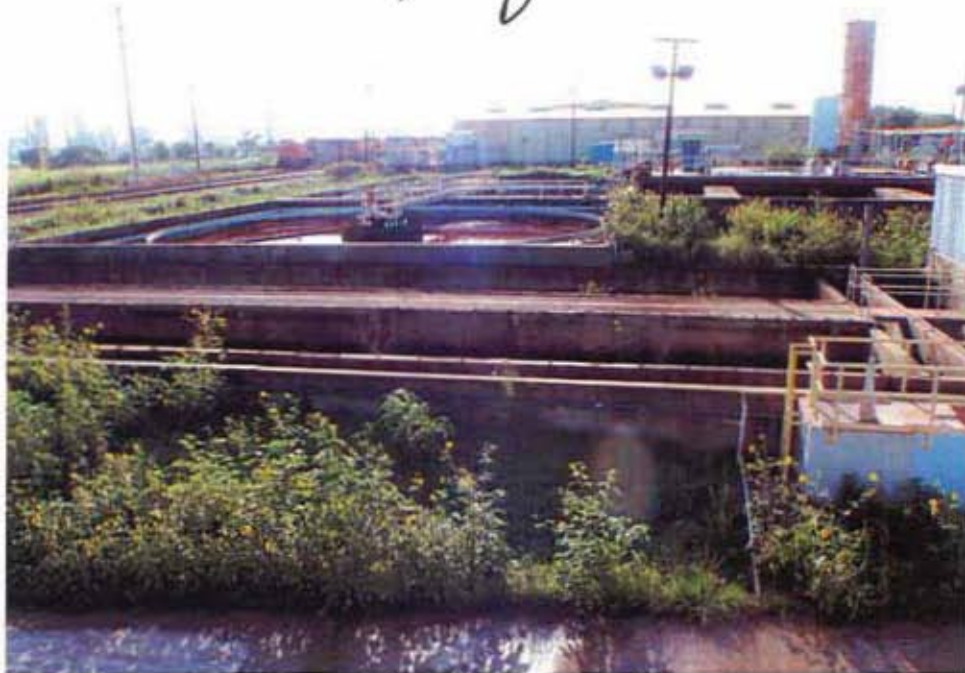


tceq070310-41

PHOTOGRAPHS TAKEN ON JULY 4, 2010, TJC



tceq070410-02



tceq070410-04



tceq070410-01

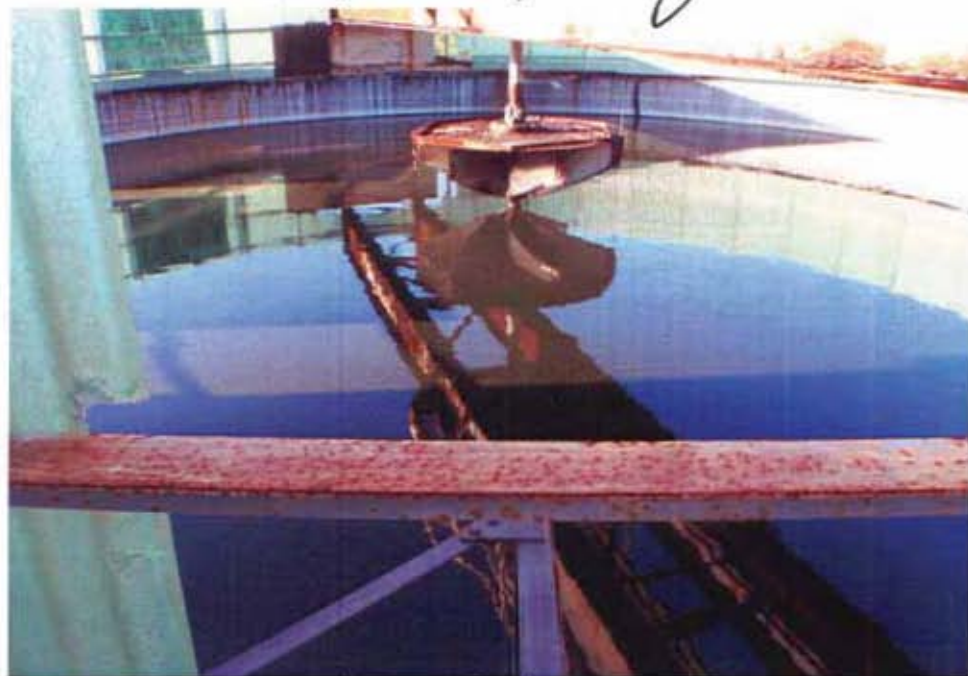


tceq070410-03

PHOTOGRAPHS TAKEN ON JULY 4, 2010, TJC



tceq 070410-06



tceq 070410-08



tceq 070410-05



tceq 070410-07

PHOTOGRAPHS TAKEN ON JULY 4, 2010, TJC



tceq 070410-10



tceq 070410-12



tceq 070410-09

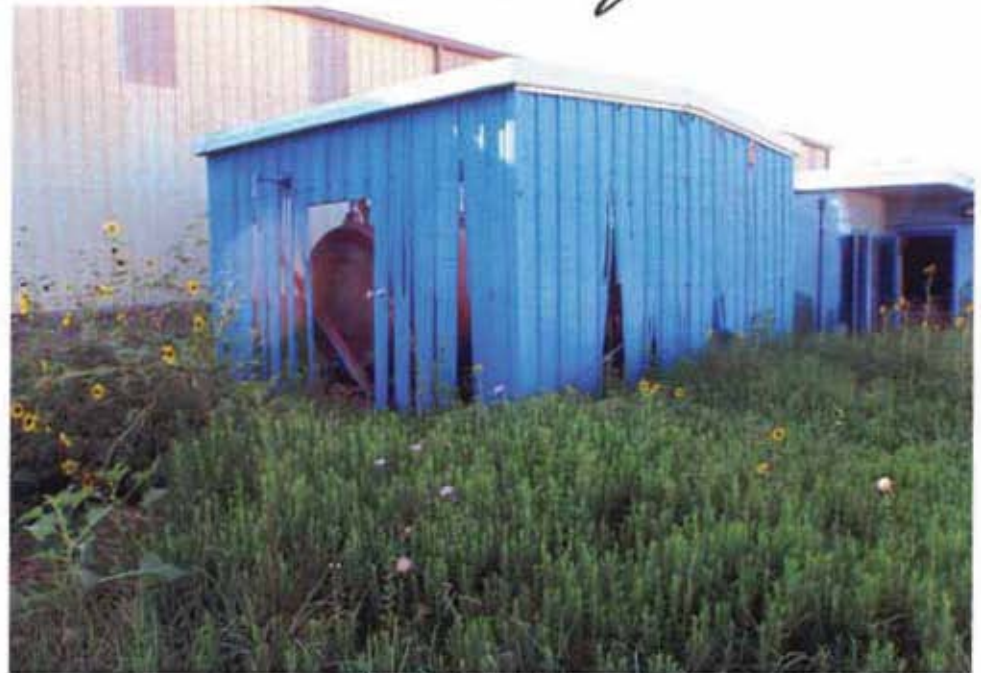


tceq 070410-11

PHOTOGRAPHS TAKEN ON JULY 4, 2010, TJC



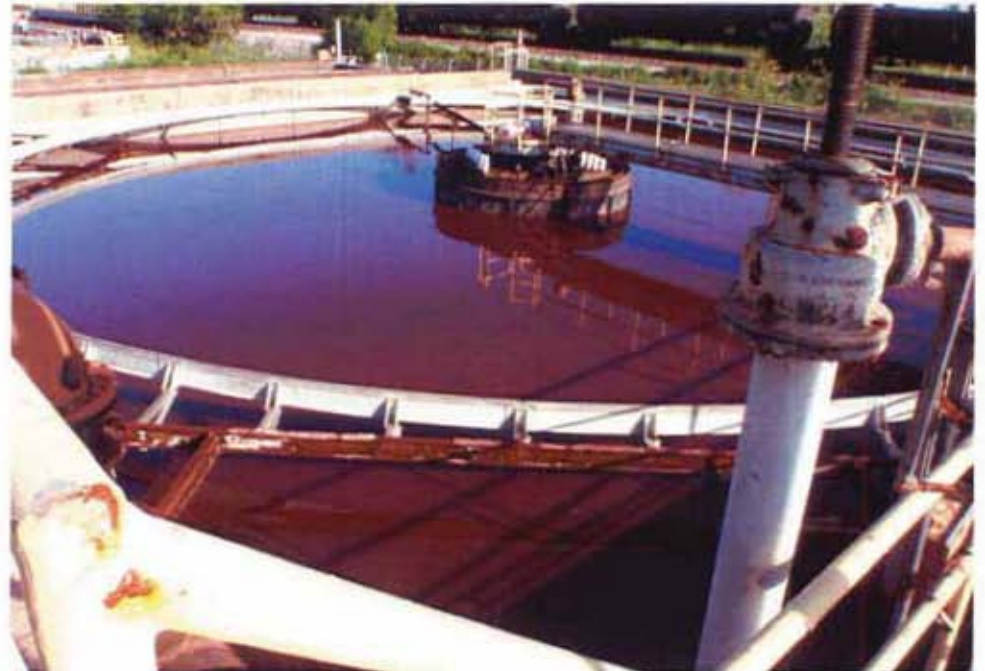
tceq070410-14



tceq070410-16



tceq070410-13



tceq070410-15

PHOTOGRAPHS TAKEN ON JULY 4, 2010, TJC



tceq070410-18



tceq070410-20



tceq070410-17



tceq070410-19

PHOTOGRAPHS TAKEN ON JULY 4, 2010, Tyla



tceq 070410-22



tceq 070410-24



tceq 070410-21



tceq 070410-23

PHOTOGRAPHS TAKEN ON JULY 4, 2010, Tja



tceq070410-26



tceq070410-28



tceq070410-25

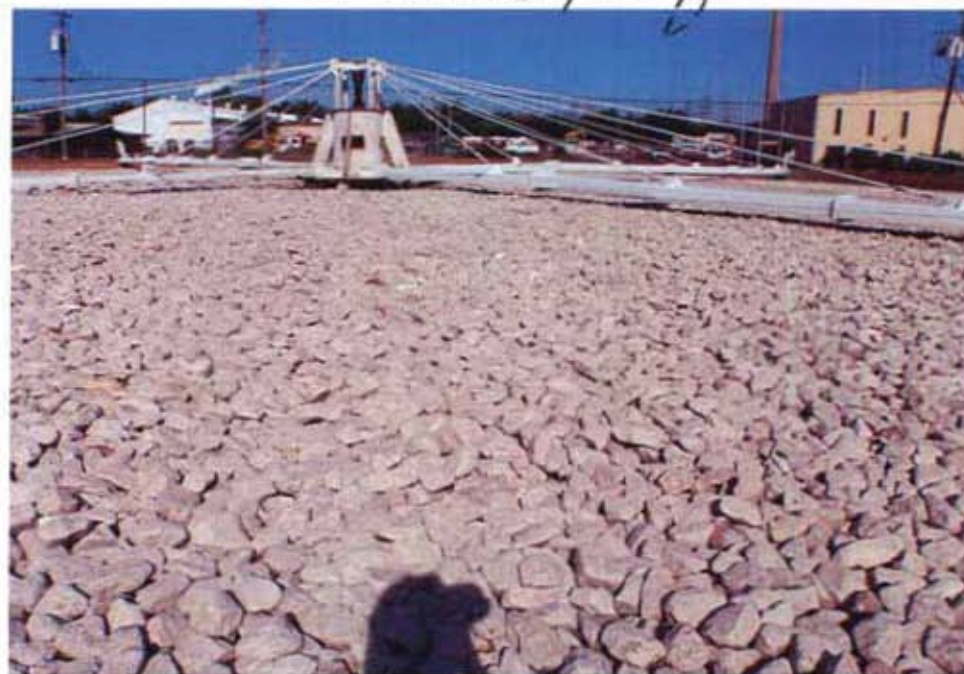


tceq070410-27

PHOTOGRAPHS TAKEN ON JULY 4, 2010, TJC



tceq070410-30



tceq070410-32



tceq070410-29



tceq070410-31

PHOTOGRAPHS TAKEN ON JULY 4, 2010, Tj A



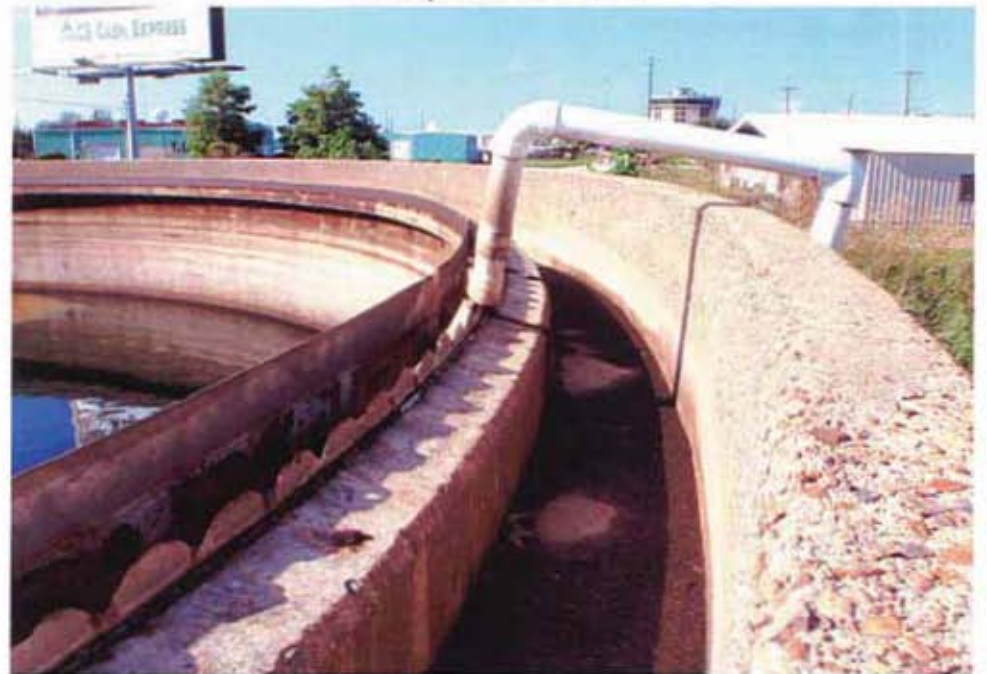
tceq070410-34



tceq070410-36



tceq070410-33



tceq070410-35

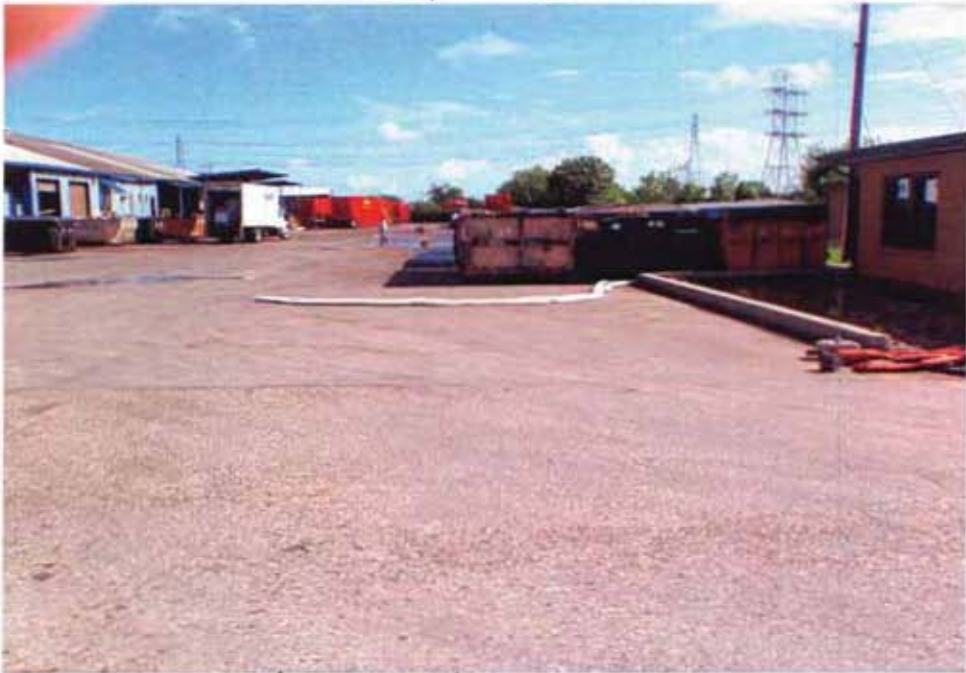
PHOTOGRAPHS TAKEN ON JULY 4, 2010, TJC



tceq070410-38



tceq070410-40



tceq070410-37



tceq070410-39

PHOTOGRAPHS TAKEN ON JULY 4, 2010, Tja



tceq 070410-42



tceq 070410-44



tceq 070410-41



tceq 070410-43

PHOTOGRAPHS TAKEN ON JULY 5, 2010, TJA



tceq070510-02



tceq070510-04



tceq070510-01



tceq070510-03

PHOTOGRAPHS TAKEN ON JULY 5, 2010

TJA



tceq 070510-05

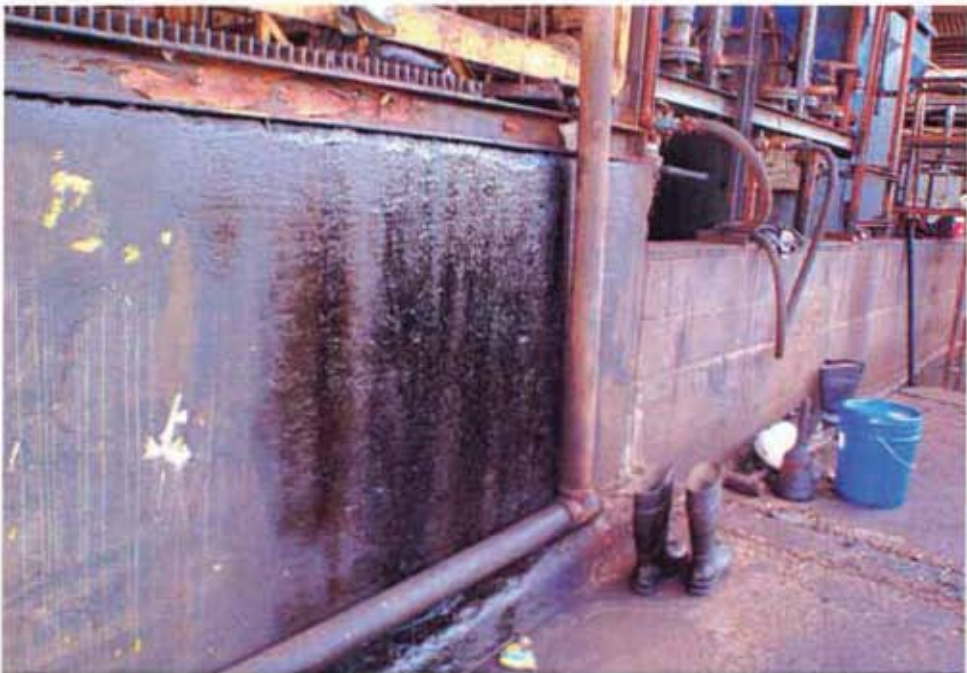
PHOTOGRAPHS TAKEN ON JULY 6, 2010, TJA



tceq070610-02



tceq070610-04



tceq070610-01



tceq070610-03

PHOTOGRAPHS TAKEN ON JULY 6, 2010, Ty C



tceq070610-06



tceq070610-08



tceq070610-05



tceq070610-07

PHOTOGRAPHS TAKEN ON JULY 6, 2010, TjL



tceq070610-10



tceq070610-12



tceq070610-09



tceq070610-11

PHOTOGRAPHS TAKEN ON JULY 7, 2010, Tja



tceq070710-02



tceq070710-04



tceq070710-01



tceq070710-03

PHOTOGRAPHS TAKEN ON JULY 7, 2010, Tya



tceq070710-06



tceq070710-08



tceq070710-05



tceq070710-07

PHOTOGRAPHS TAKEN ON JULY 7, 2010, TJC



tceq070710-10



tceq070710-12



tceq070710-09



tceq070710-11

PHOTOGRAPHS TAKEN ON JULY 7, 2010, TJC



tceq070710-14



tceq070710-16



tceq070710-13

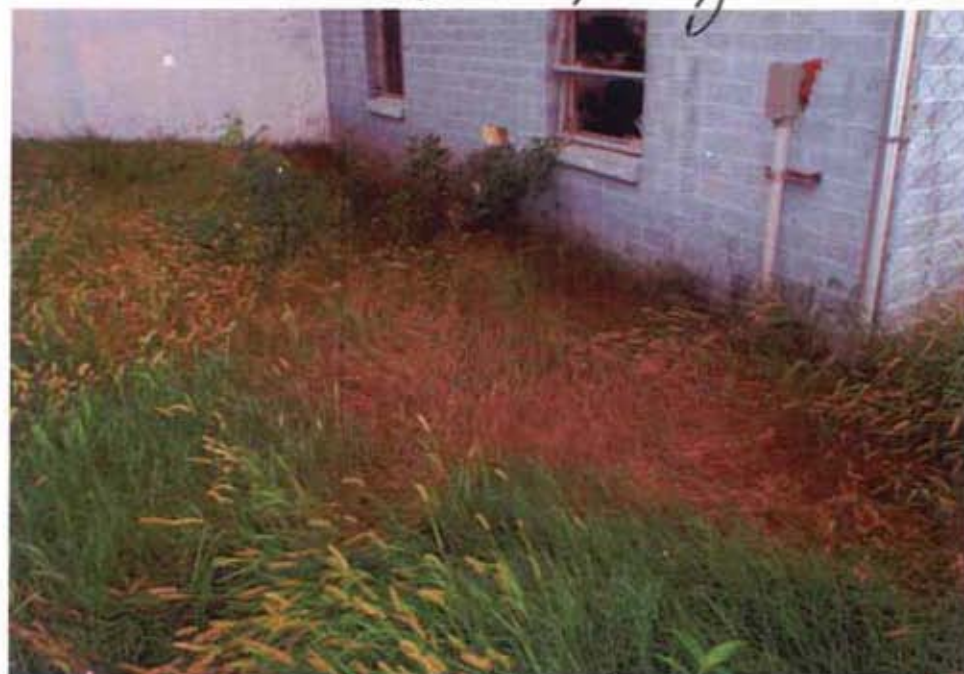


tceq070710-15

PHOTOGRAPHS TAKEN ON JULY 7, 2010, Tja



tceq070710-18



tceq070710-20



tceq070710-17



tceq070710-19

PHOTOGRAPHS TAKEN ON JULY 7, 2010, Tja



tceq070710-22



tceq070710-24



tceq070710-21



tceq070710-23

PHOTOGRAPHS TAKEN ON JULY 8, 2010, Tja



tce9070810-02



tce9070810-04



tce9070810-01



tce9070810-03

PHOTOGRAPHS TAKEN ON JULY 8, 2010, TJC



tceq070810-06



tceq070810-08



tceq070810-05



tceq070810-07

PHOTOGRAPHS TAKEN ON JULY 8, 2010, Tja



tceq070810-10



tceq070810-12



tceq070810-09



tceq070810-11

PHOTOGRAPHS TAKEN ON JULY 8, 2010, TJL



tceq070810-14



tceq070810-16



tceq070810-13



tceq070810-15

PHOTOGRAPHS TAKEN ON JULY 8, 2010, Tja



tceq070810-18



tceq070810-20



tceq070810-17

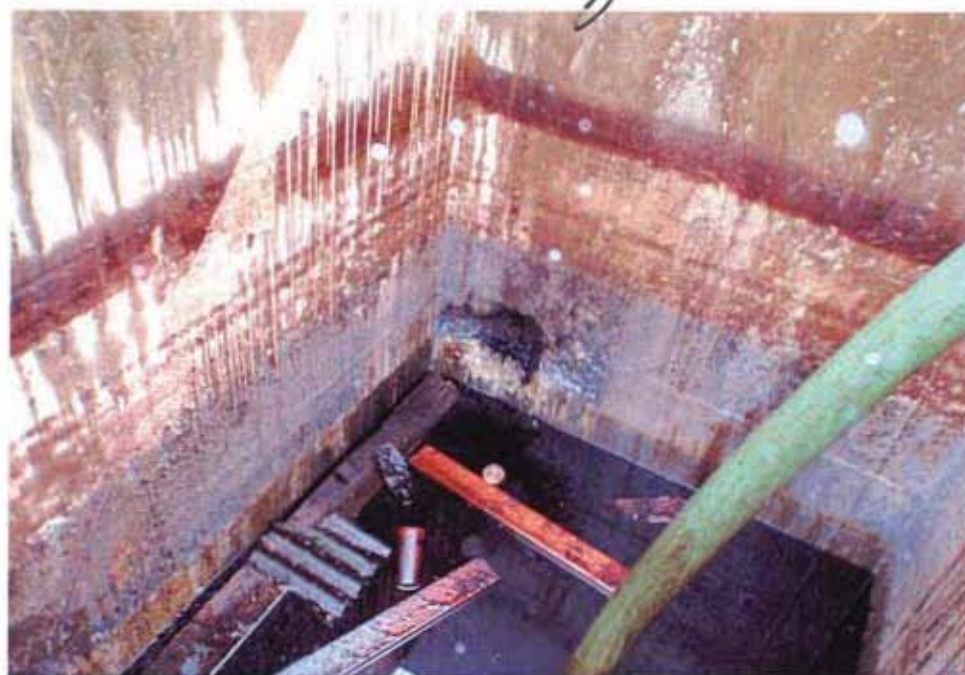


tceq070810-19

PHOTOGRAPHS TAKEN ON JULY 8, 2010, Tyl



tceq070810-22



tceq070810-24



tceq070810-21



tceq070810-23

PHOTOGRAPHS TAKEN ON JULY 8, 2010, TJC



tceq 070810-24



tceq 070810-28



tceq 070810-25



tceq 070810-27

PHOTOGRAPHS TAKEN ON JULY 8, 2010, Tyc



tceq 070810-30



tceq 070810-32



tceq 070810-29



tceq 070810-31

PHOTOGRAPHS TAKEN ON JULY 8, 2010

Ty A



tceq 070810-33

PHOTOGRAPHS TAKEN ON JULY 9, 2010, TjL



tceq070910-02



tceq070910-04

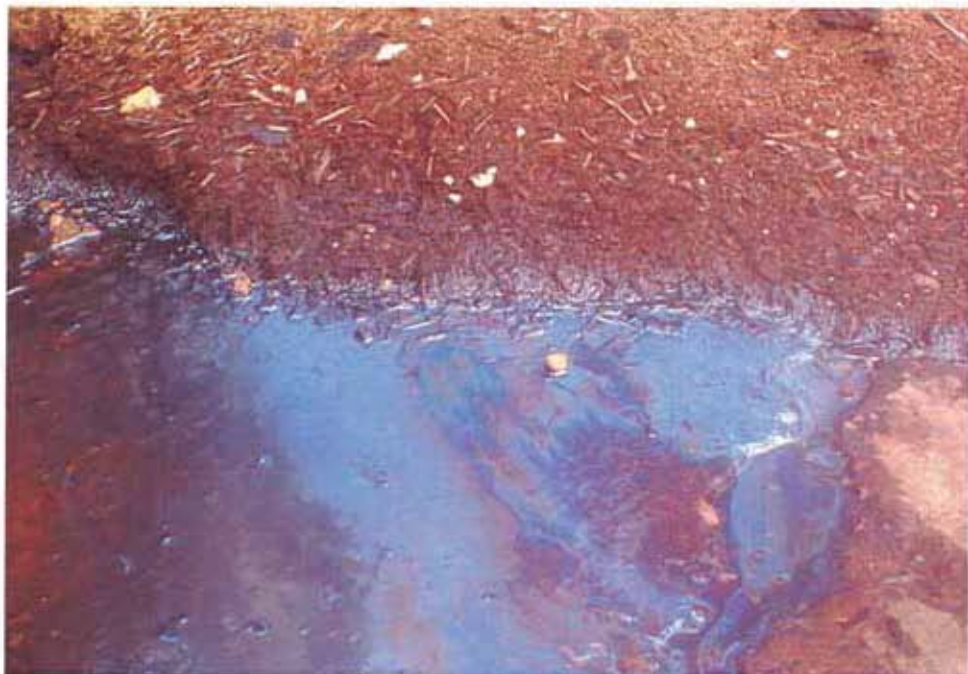


tceq070910-01



tceq070910-03

PHOTOGRAPHS TAKEN ON JULY 9, 2010, Tya



tceq070910-06



tceq070910-08



tceq070910-05



tceq070910-07

PHOTOGRAPHS TAKEN ON JULY 9, 2010, TJC



tceq070910-10



tceq070910-12

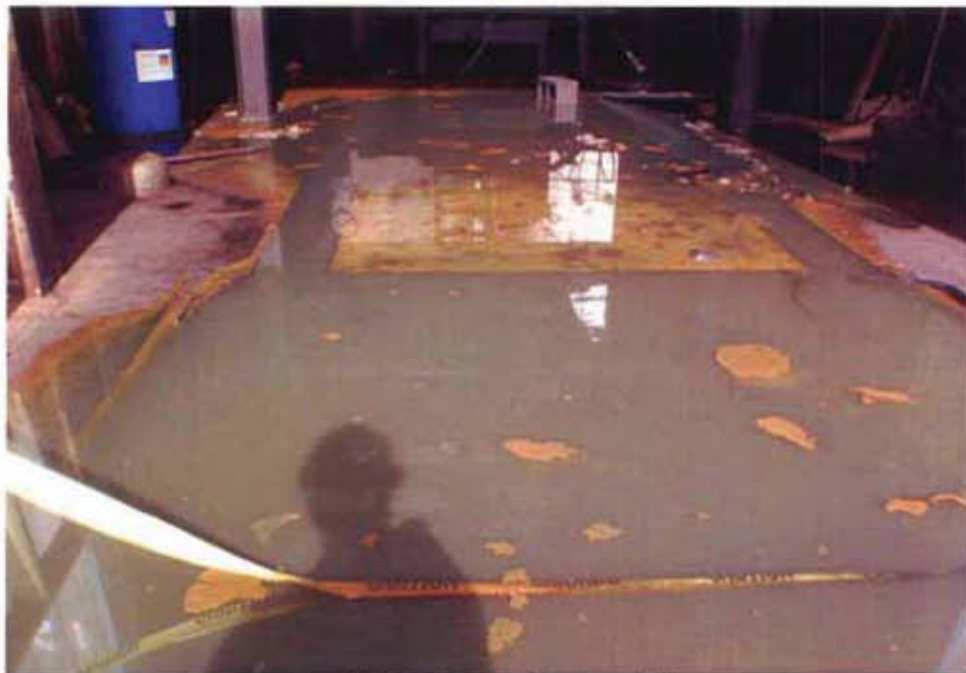


tceq070910-09



tceq070910-11

PHOTOGRAPHS TAKEN ON JULY 9, 2010, TJC



tceq070910-14



tceq070910-16



tceq070910-13



tceq070910-15

PHOTOGRAPHS TAKEN ON JULY 9, 2010, TJC



tceq070910-18



tceq070910-20



tceq070910-17

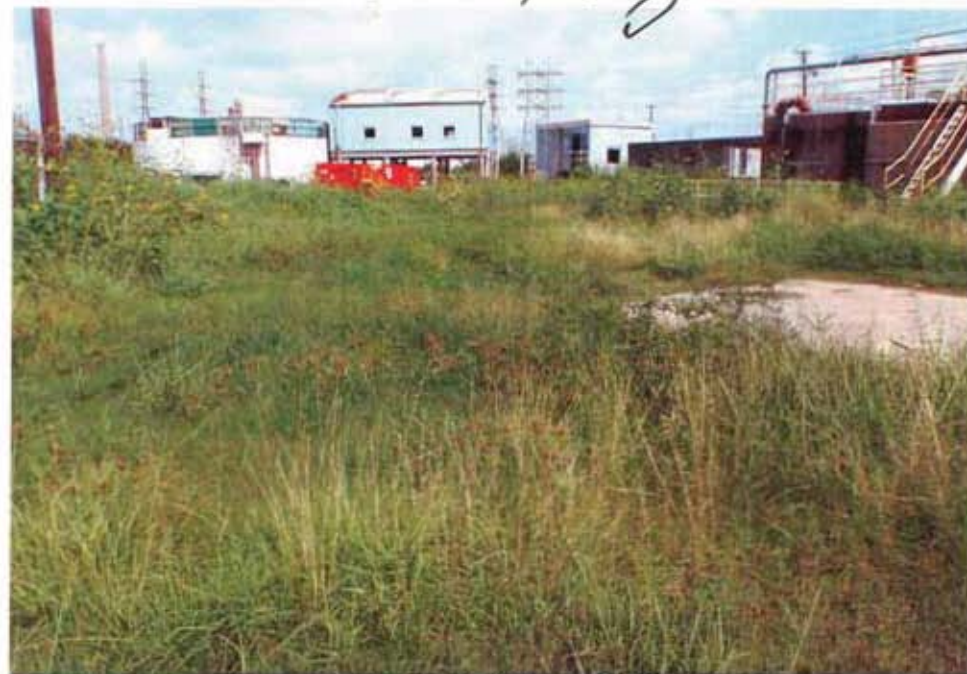


tceq070910-19

PHOTOGRAPHS TAKEN ON JULY 9, 2010, Tj And



tceq070910-22



tceq070910-24



tceq070910-21



tceq070910-23

PHOTOGRAPHS TAKEN ON JULY 9, 2010, Tyle



tceq070910-26



tceq070910-28



tceq070910-25



tceq070910-27

PHOTOGRAPHS TAKEN ON JULY 9, 2010, Tya



tceq070910-30



tceq070910-32



tceq070910-29



tceq070910-31

PHOTOGRAPHS TAKEN ON JULY 9, 2010, TGL



tceq070910-34



tceq070910-36



tceq070910-33



tceq070910-35

PHOTOGRAPHS TAKEN ON JULY 9, 2010

TJC



tceq070910-38



tceq070910-37



tceq070910-39

PHOTOGRAPHS TAKEN ON JULY 10, 2010, Tyl



tceq071010-02



tceq071010-04



tceq071010-01



tceq071010-03

PHOTOGRAPHS TAKEN ON JULY 10, 2010, *Tyler*



tceq071010-06



tceq071010-08



tceq071010-05



tceq071010-07

PHOTOGRAPHS TAKEN ON JULY 10, 2010, TJC



tceq071010-10



tceq071010-12



tceq071010-09



tceq071010-11

PHOTOGRAPHS TAKEN ON JULY 10, 2010, Tyl



tceq071010-14



tceq071010-16

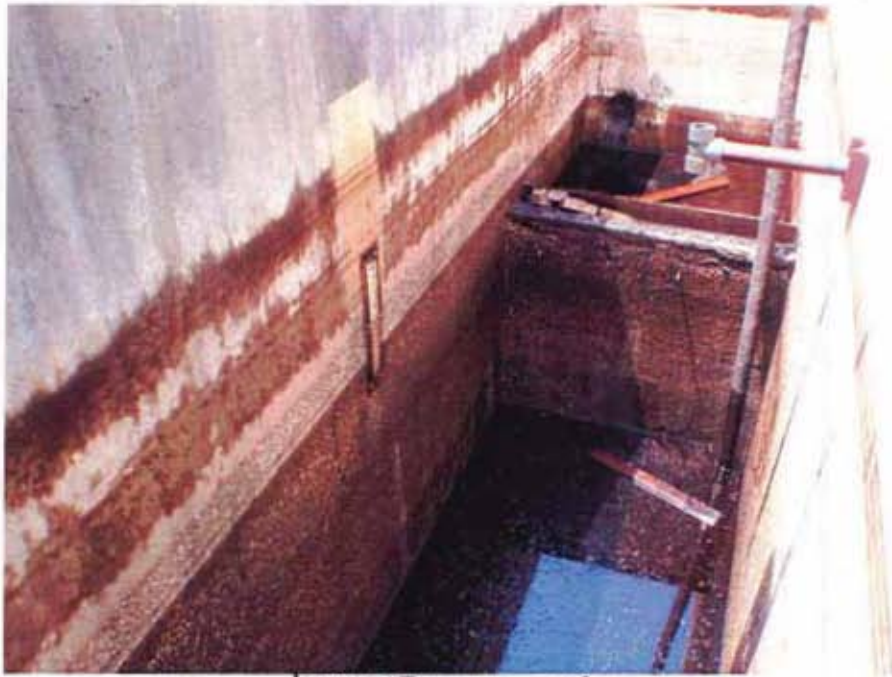


tceq071010-13



tceq071010-15

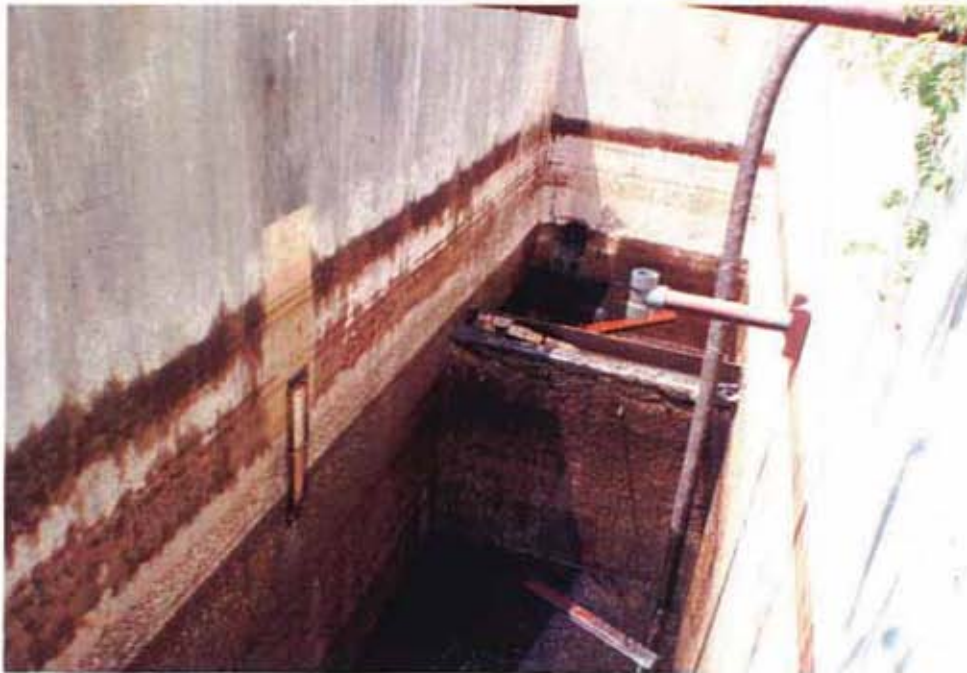
PHOTOGRAPHS TAKEN ON JULY 10, 2010, *Trey Clark*



tceq071010-18



tceq071010-20



tceq071010-17



tceq071010-19

PHOTOGRAPHS TAKEN ON JULY 10, 2010

T. J. Aul

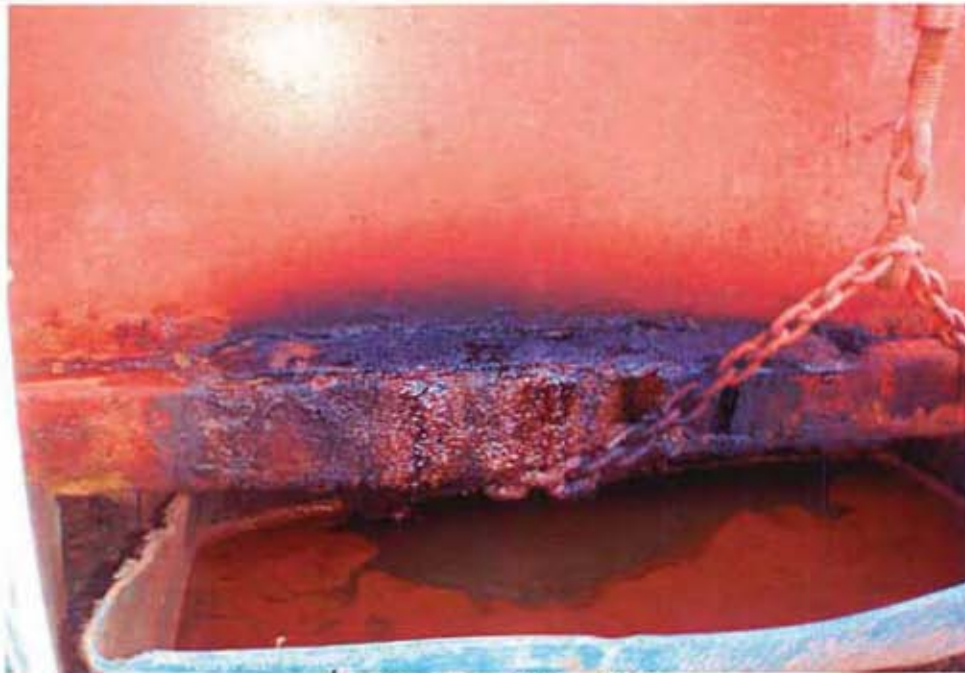


tceq071010-22



tceq071010-21

PHOTOGRAPHS TAKEN ON JULY 12, 2010 *Tyla*



tceq071210-02



tceq071210-04



tceq071210-01

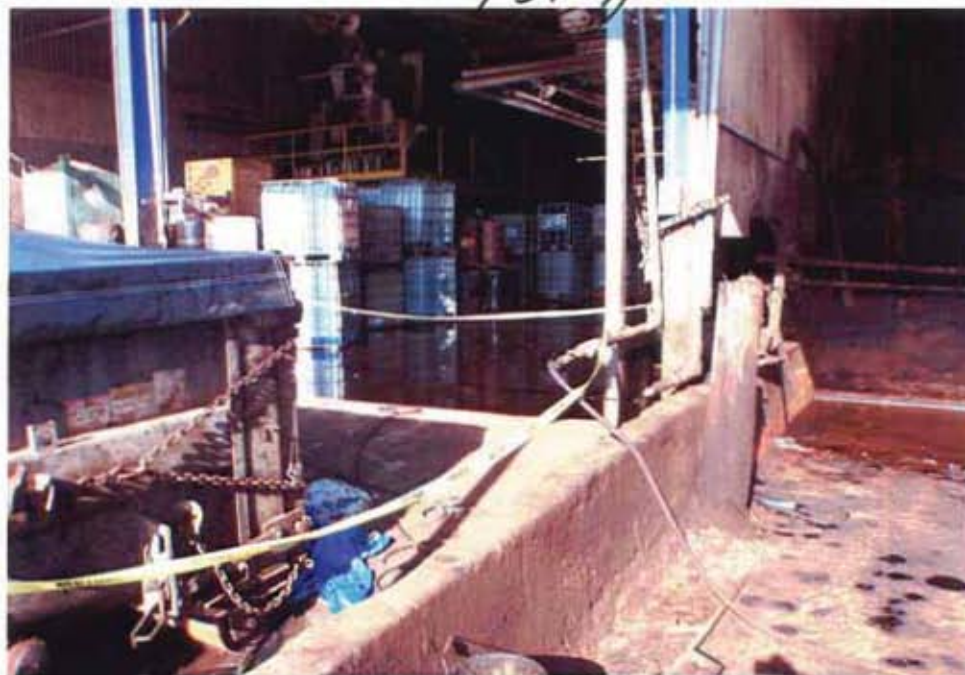


tceq071210-03

PHOTOGRAPHS TAKEN ON JULY 12, 2010, Tjh



tceq 071210-06



tceq 071210-08

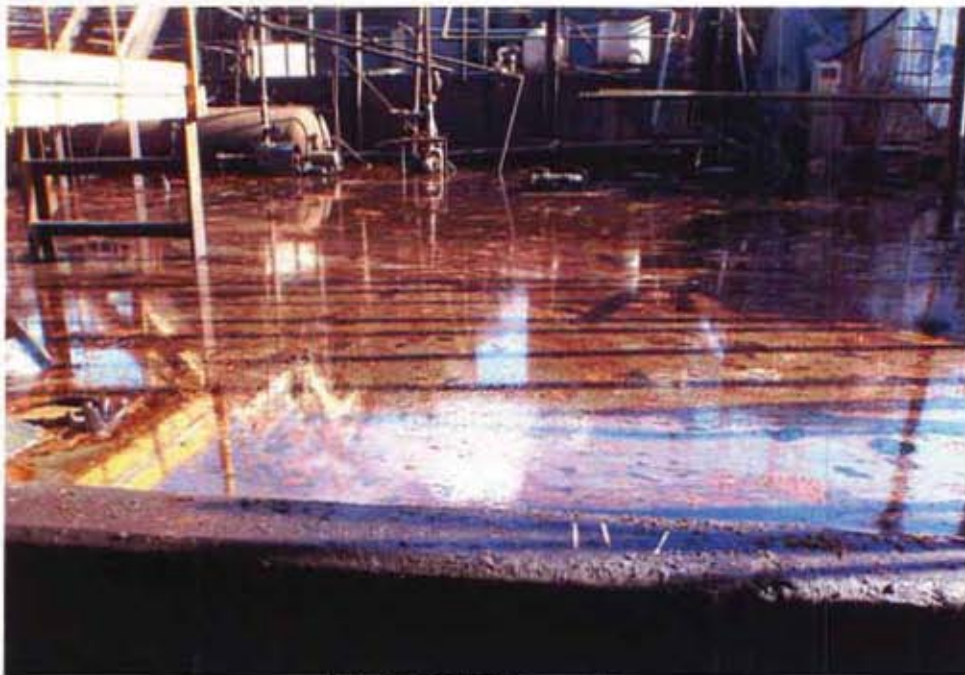


tceq 071210-05



tceq 071210-07

PHOTOGRAPHS TAKEN ON JULY 12, 2010, Tylan



tceq071210-10



tceq071210-12



tceq071210-09



tceq071210-11

PHOTOGRAPHS TAKEN ON JULY 12, 2010, *Tyler*



tceq 071210-14



tceq 071210-16



tceq 071210-13



tceq 071210-15

PHOTOGRAPHS TAKEN ON JULY 12, 2010, TJA



tceq 071210-18



tceq 071210-20



tceq 071210-17



tceq 071210-19

PHOTOGRAPHS TAKEN ON JULY 12, 2010, Tfu



tceq071210-22



tceq071210-24



tceq071210-21



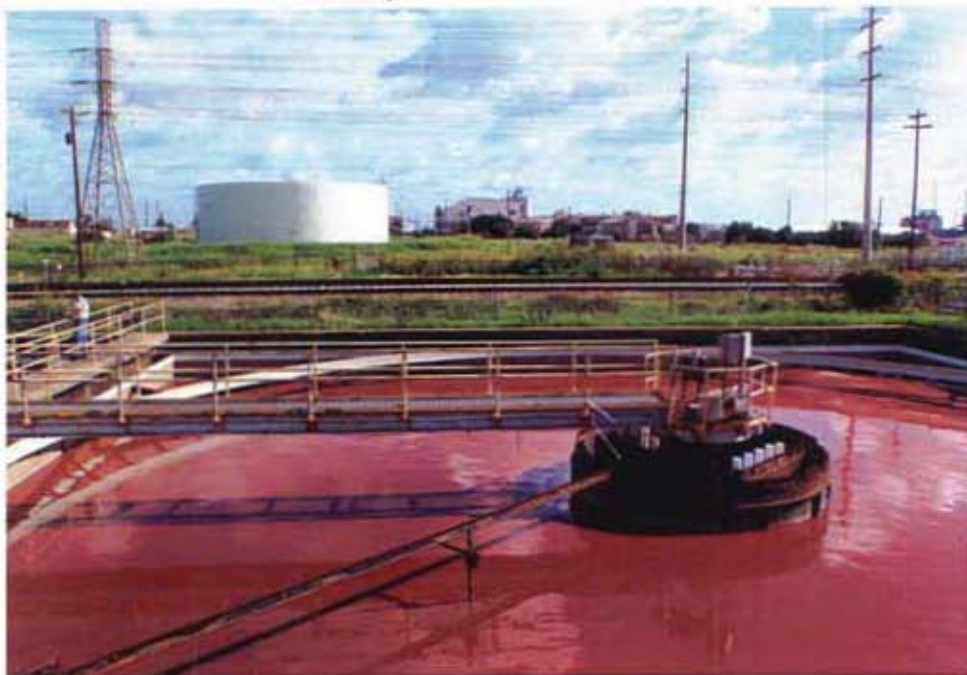
tceq071210-23

PHOTOGRAPHS TAKEN ON JULY 12, 2010,

TJA



tce9071210-24



tce9071210-25

PHOTOGRAPHS TAKEN ON JULY 13, 2010, Tyla



tceq071310-02



tceq071310-04



tceq071310-01



tceq071310-03

PHOTOGRAPHS TAKEN ON JULY 13, 2010, *Tracy*



tceq071310-06



tceq071310-08



tceq071310-05

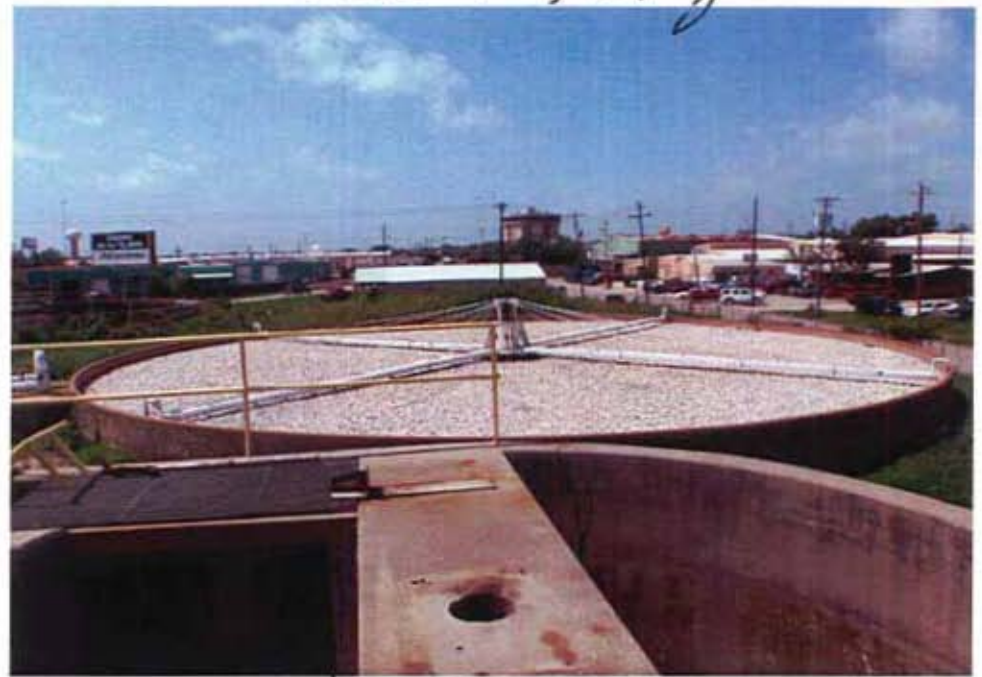


tceq071310-07

PHOTOGRAPHS TAKEN ON JULY 13, 2010, Tyla



tceq071310-10



tceq071310-12



tceq071310-09



tceq071310-11

PHOTOGRAPHS TAKEN ON JULY 13, 2010

Ty A



tceq071310-14



tceq071310-13

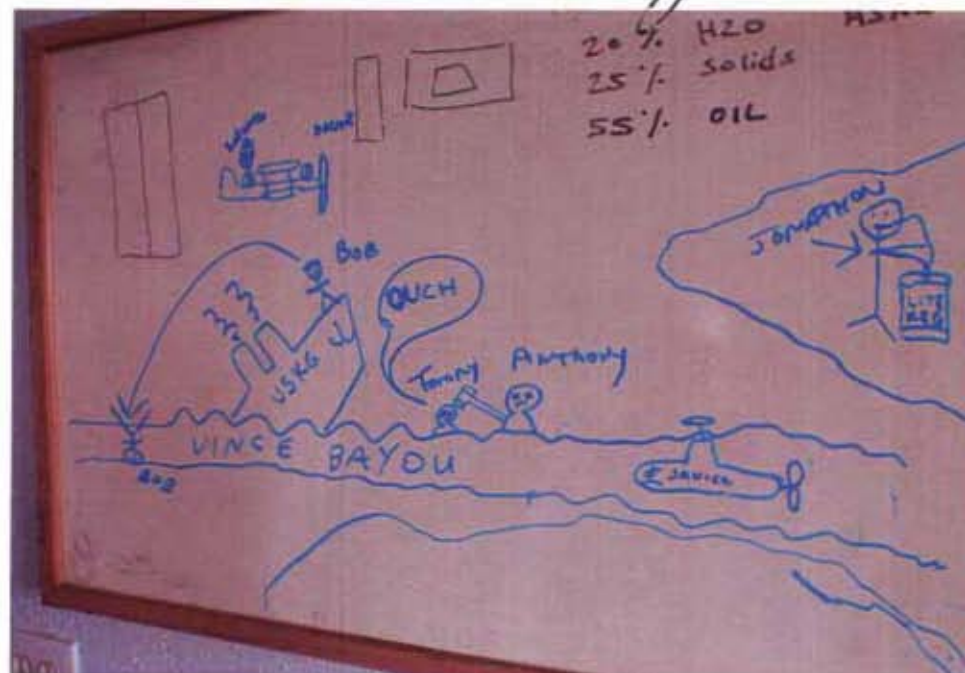


tceq071310-15

PHOTOGRAPHS TAKEN ON JULY 14, 2010, Tya



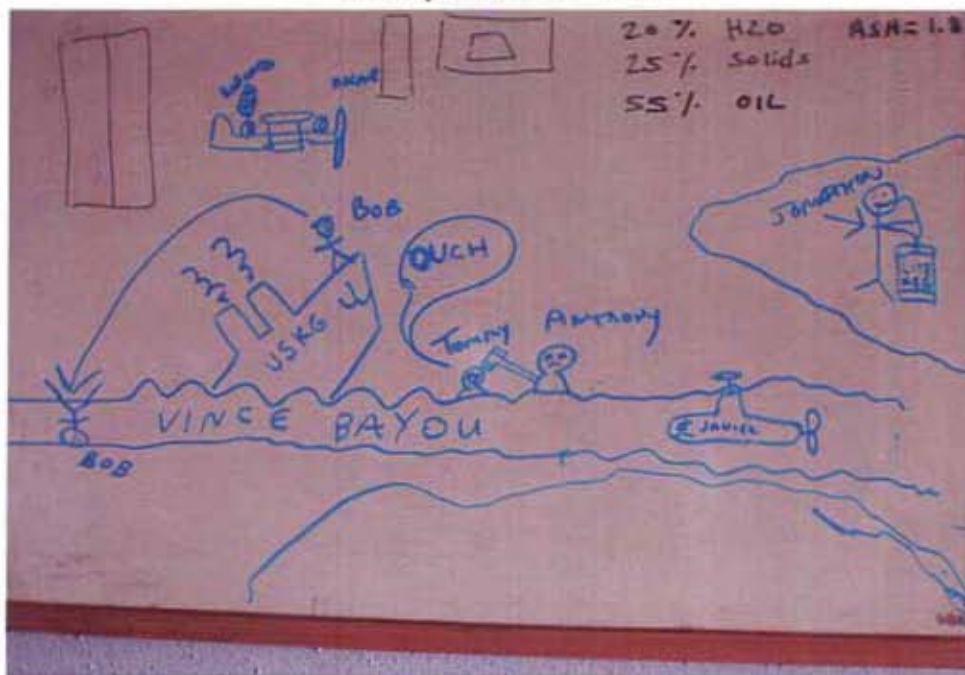
tceq071410-06



tceq071410-08



tceq071410-05



tceq071410-07

PHOTOGRAPHS TAKEN ON JULY 14, 2010, TZA



tceq 071410-02



tceq 071410-04



tceq 071410-01



tceq 071410-03

PHOTOGRAPHS TAKEN ON JULY 14, 2010,

Tja



tce9071410-09

PHOTOGRAPHS TAKEN ON JULY 16, 2010, Tj



tceq071610-02



tceq071610-04



tceq071610-01



tceq071610-03

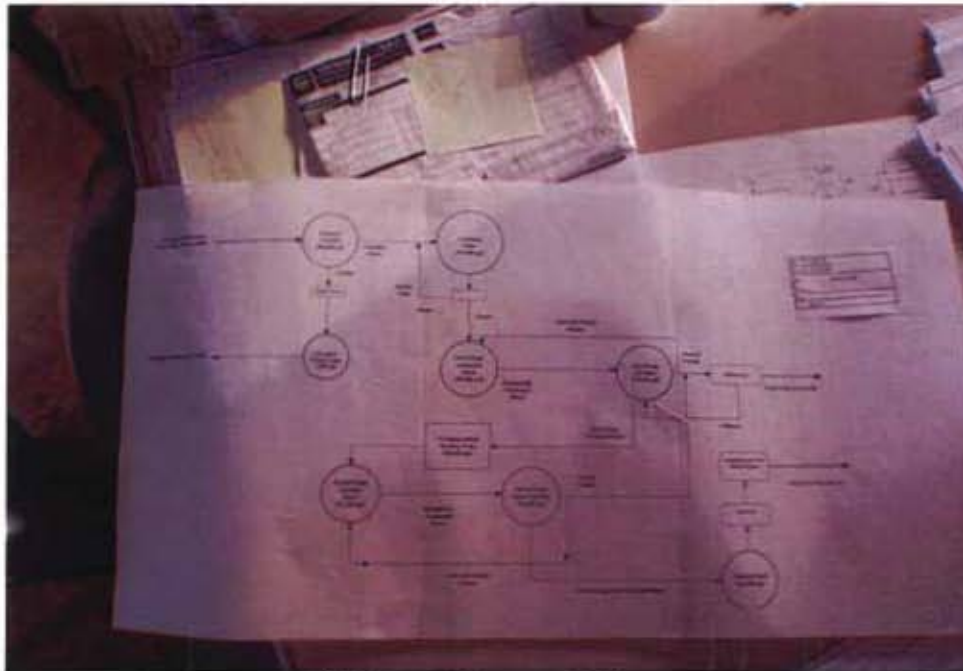
PHOTOGRAPHS TAKEN ON JULY 16, 2010, TJC



tceq071610-06



tceq071610-08



tceq071610-05



tceq071610-07

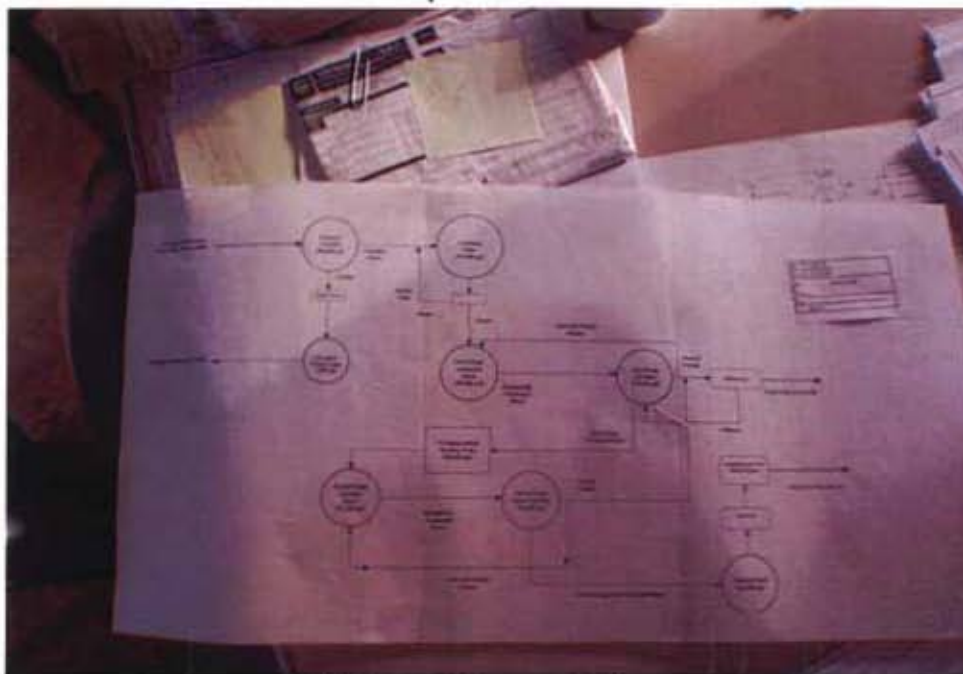
PHOTOGRAPHS TAKEN ON JULY 16, 2010, TJC



tceq071610-06



tceq071610-08



tceq071610-05



tceq071610-07

PHOTOGRAPHS TAKEN ON JULY 16, 2010, Tg



tceq 071610-10



tceq 071610-12



tceq 071610-09

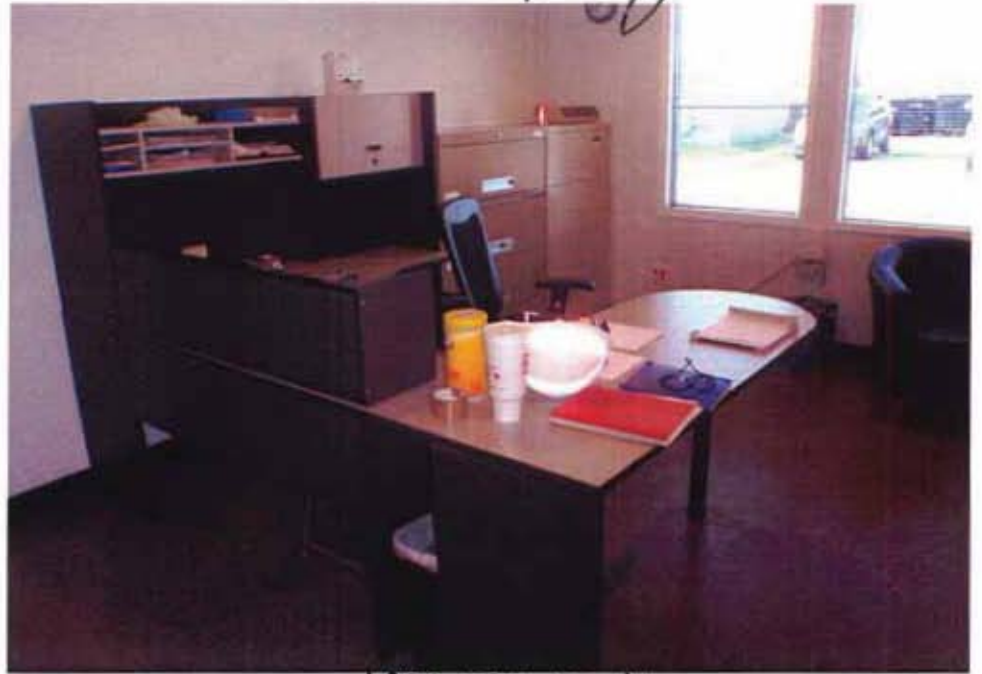


tceq 071610-11

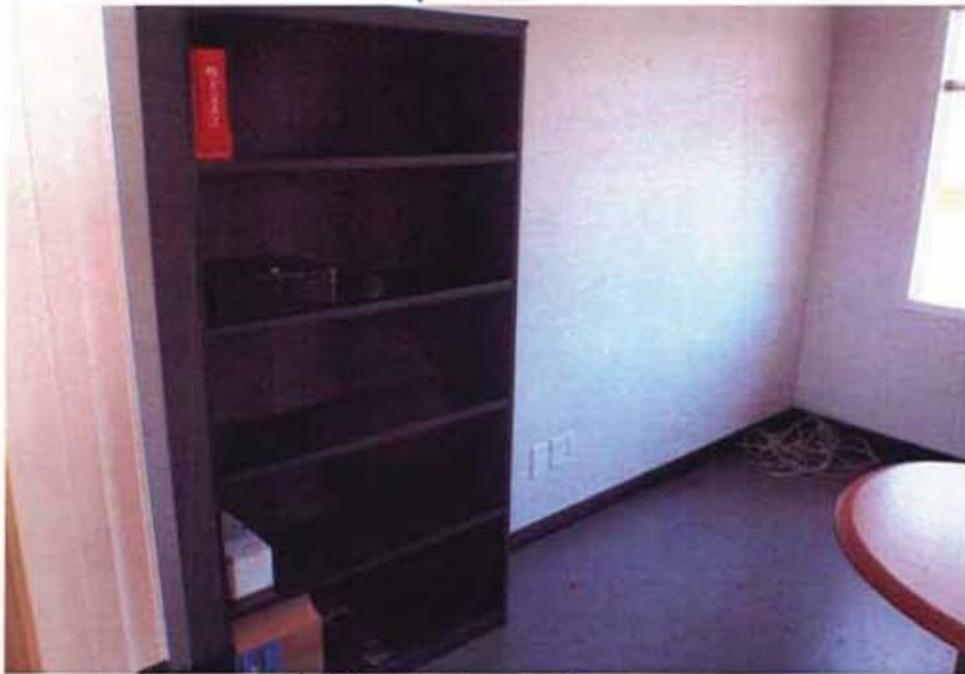
PHOTOGRAPHS TAKEN ON JULY 16, 2010, TJA



tceq 071610-14



tceq 071610-16



tceq 071610-13



tceq 071610-15

PHOTOGRAPHS TAKEN ON JULY 14, 2010, Tja

BERNARD
CHRISTINE
MCC

615-475-7917
615-475-4444
609-871-9282
FAX 615-244-7666

MANUFACTURERS 301-468-1306 321-632
FAX 321-468-1326
TELEPHONE TRUCK 204-621-2200

EMPLOYEE CONTACT LIST

KLAUS GENSLER 713-857-3429
PRESIDENT

TOM STARSKE 713-562-0997
PROPERTY MANAGER

IRAID ROSENTHAL 713-412-1991
GENE HANKS 713-557-9218
PERSONAL 801-309-5508
BRICE MIZELL 281-883-2613
JIMMY CRANFORD 713-557-9168
DAVID HODGE 713-920-0290
JIMMY STEWART 713-410-9394 DRIVER
MARTIN ZAWINZA 713-409-6673 DRIVER

TOBI BOYER
ALTA CHAMPAGNE
APRIL COOPER
ASHLEY HERNANDEZ
DANIEL ESPINOZA
ERNEST HAGERMAN

JACQUELINE GENSLER 713-854-0237
ROLF GENSLER 713-562-5956
WILLIE BANDA 281-506-6874

PERSONAL 615-719-14



tceq 071610-18

tceq071410-20

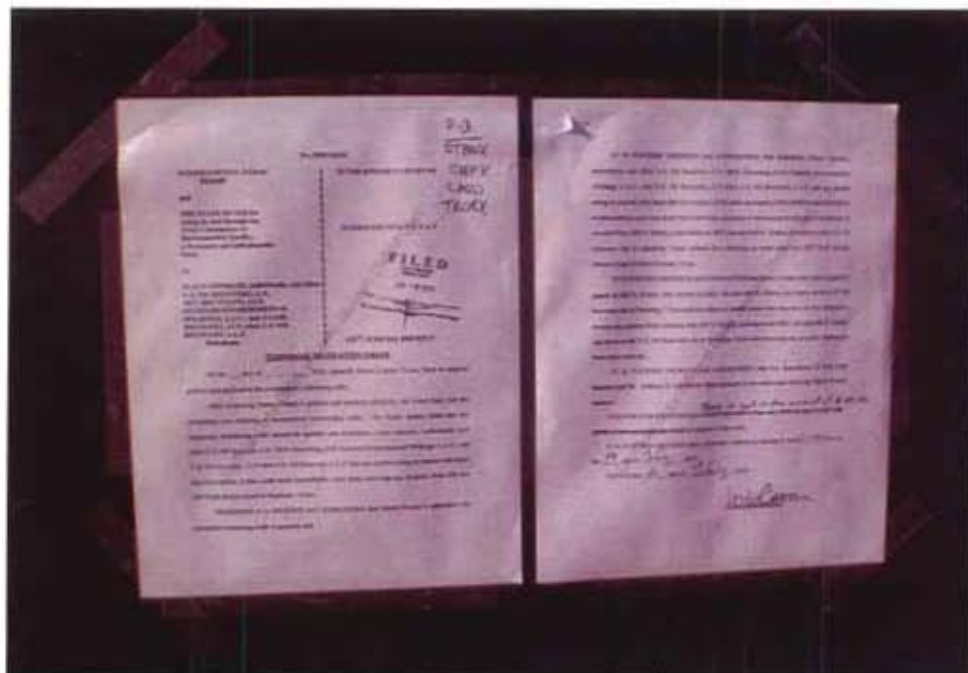


tc 071610-17



tce9071610-19

PHOTOGRAPHS TAKEN ON JULY 16, 2010, TJC



tceq071610-22



tceq071610-24



tceq071610-21



tceq071610-23

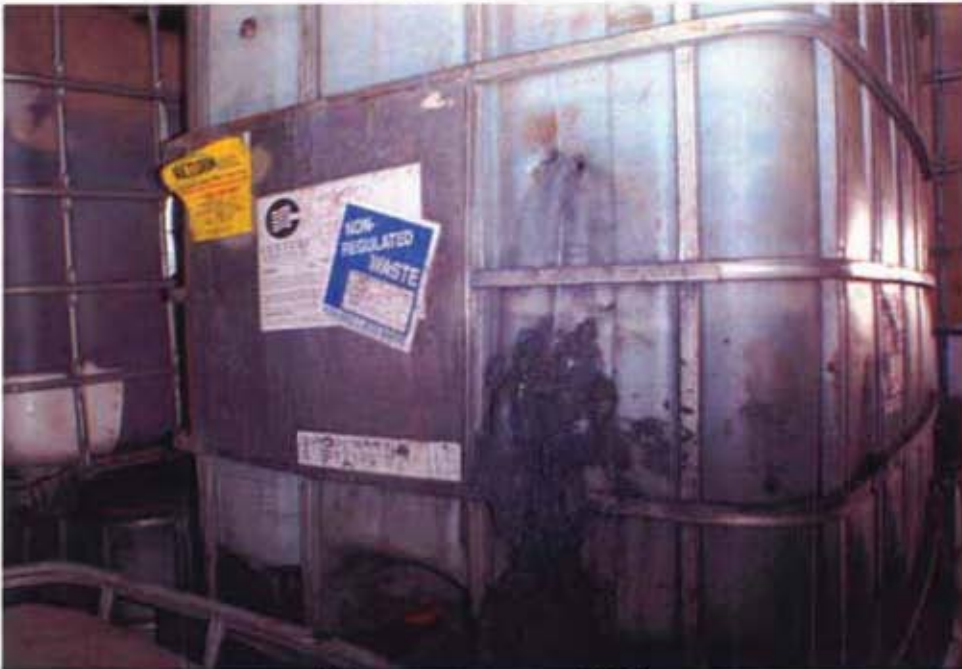
PHOTOGRAPHS TAKEN ON JULY 16, 2010, TJC



tceq071610-26



tceq071610-28



tceq071610-25



tceq071610-27

PHOTOGRAPHS TAKEN ON JULY 16, 2010, Tj



tceq 071610-30



tceq 071610-32



tceq 071610-29



tceq 071610-31

PHOTOGRAPHS TAKEN ON JULY 16, 2010, J7



tceq 071610-34



tceq 071610-36



tceq 071610-33

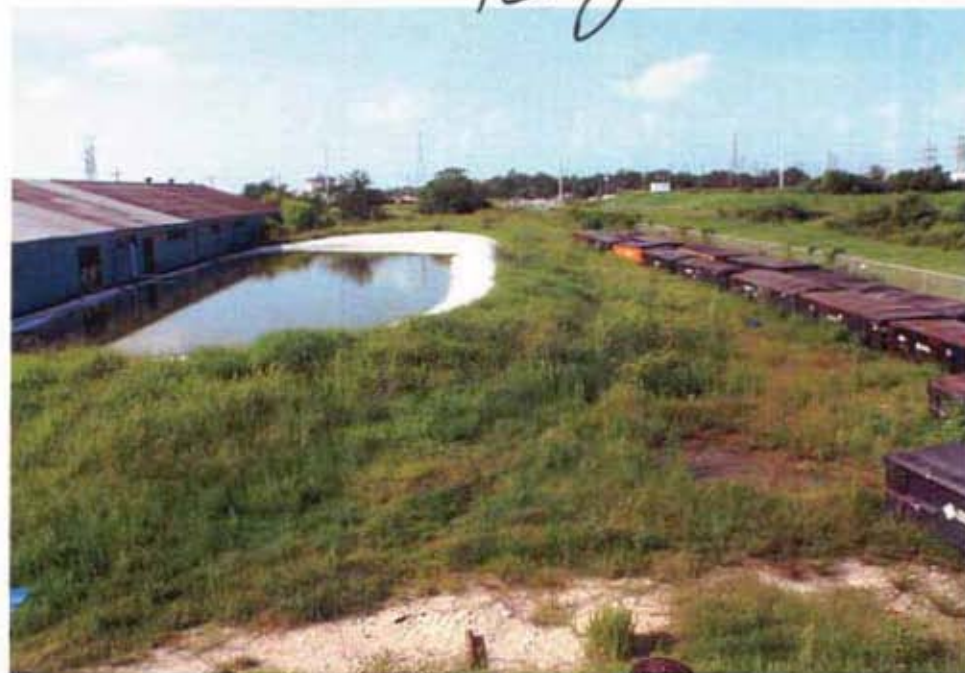


tceq 071610-35

PHOTOGRAPHS TAKEN ON JULY 16, 2010, Tja



tceq071610-38



tceq071610-40



tceq071610-37



tceq071610-39

PHOTO GRAPHS TAKEN ON JULY 16, 2010, Tj



tceq071610-42



tceq071610-44



tceq071610-41



tceq071610-43

PHOTOGRAPHS TAKEN ON JULY 16, 2010, TJC



tceq 071610-46



tceq 071610-48



tceq 071610-45



tceq 071610-47

PHOTOGRAPHS TAKEN ON JULY 16, 2010, Tjg



tceq071610-50



tceq071610-52



tceq071610-49

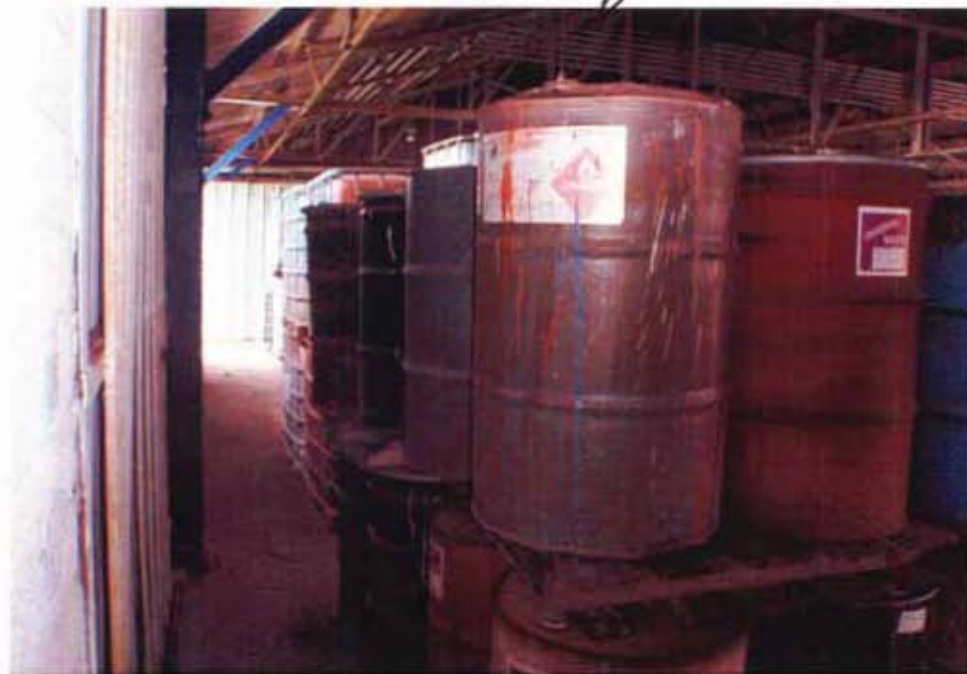


tceq071610-51

PHOTOGRAPHS TAKEN ON JULY 16, 2010, Tega



tceq071610-54



tceq071610-56

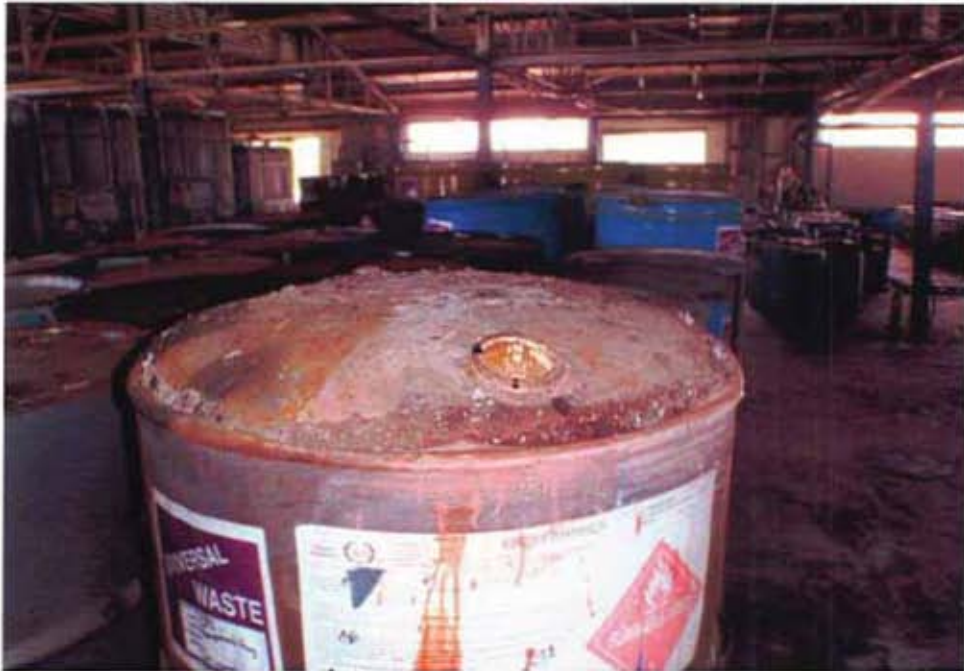


tceq071610-53

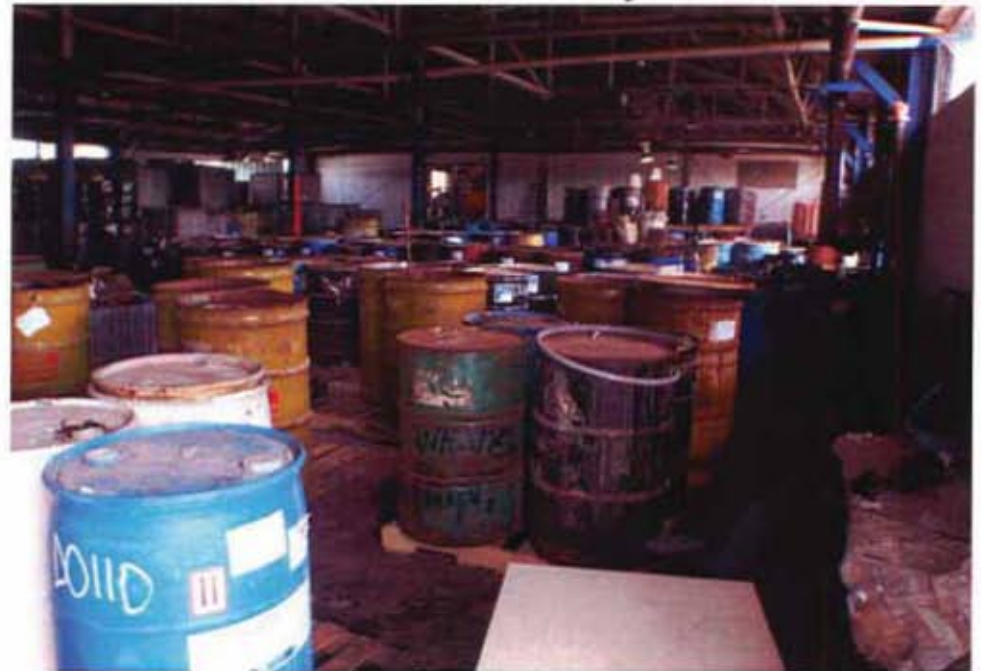


tceq071610-55

PHOTOGRAPHS TAKEN ON JULY 16, 2010, Tyl



tceq071610-58



tceq071610-60



tceq071610-57



tceq071610-59

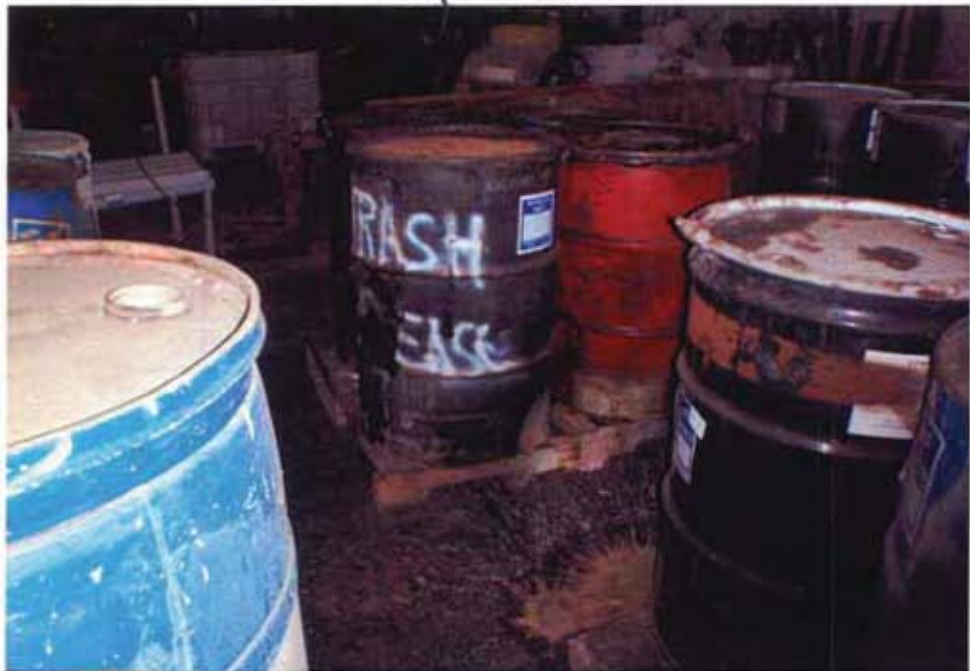
PHOTOGRAPHS TAKEN ON JULY 14, 2010, Tyl



tceq 071610-62



tceq 071610-64



tceq 071610-61



tceq 071610-63

PHOTOGRAPHS TAKEN ON JULY 16, 2010, *Taylor*



tceq071610-66



tceq071610-68



tceq071610-65

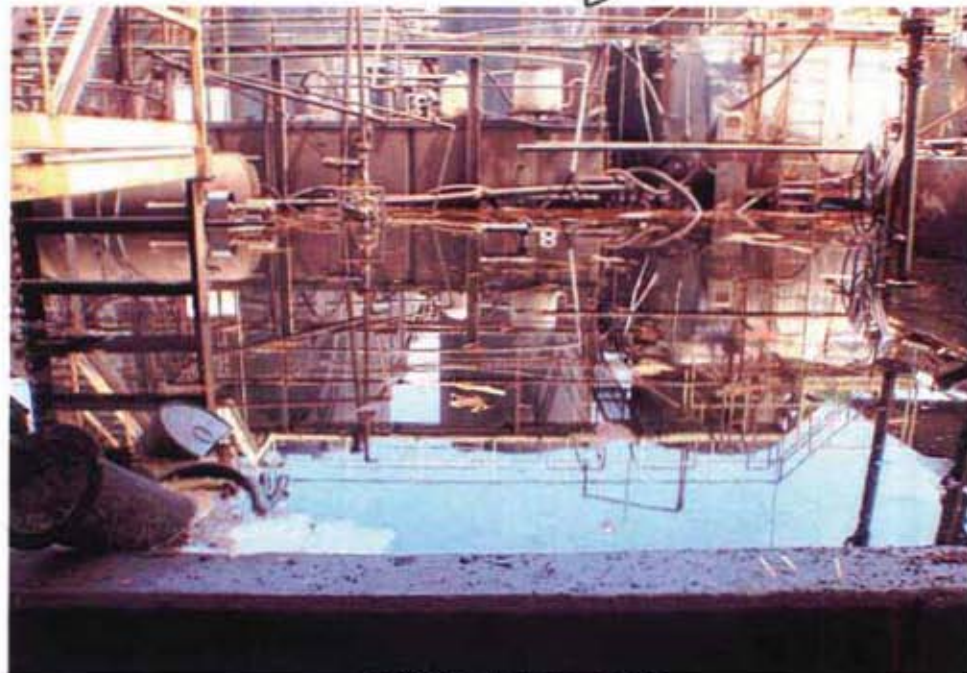


tceq071610-67

PHOTO GRAPHS TAKEN ON JULY 16, 2010, Tjg



tceq071610-70



tceq071610-72



tceq071610-69



tceq071610-71

PHOTOGRAPHS TAKEN ON JULY 16, 2010, TJC



tceq 071610-74



tceq 071610-76



tceq 071610-73



tceq 071610-75

PHOTOGRAPHS TAKEN ON JULY 16, 2010,

Ty A



tceq071610-78



tceq071610-77

PHOTOGRAPHS TAKEN ON JULY 22, 2010, Tyl



tceq072210-02



tceq072210-04



tceq072210-01



tceq072210-03

PHOTOGRAPHS TAKEN ON JULY 22, 2010, Tyl



tceq072210-06



tceq072210-08



tceq072210-05



tceq072210-07

PHOTOGRAPHS TAKEN ON JULY 22, 2010, Tj



tceq 072210-10



tceq 072210-12



tceq 072210-09



tceq 072210-11

PHOTOGRAPHS TAKEN ON July 22, 2010, Tyla



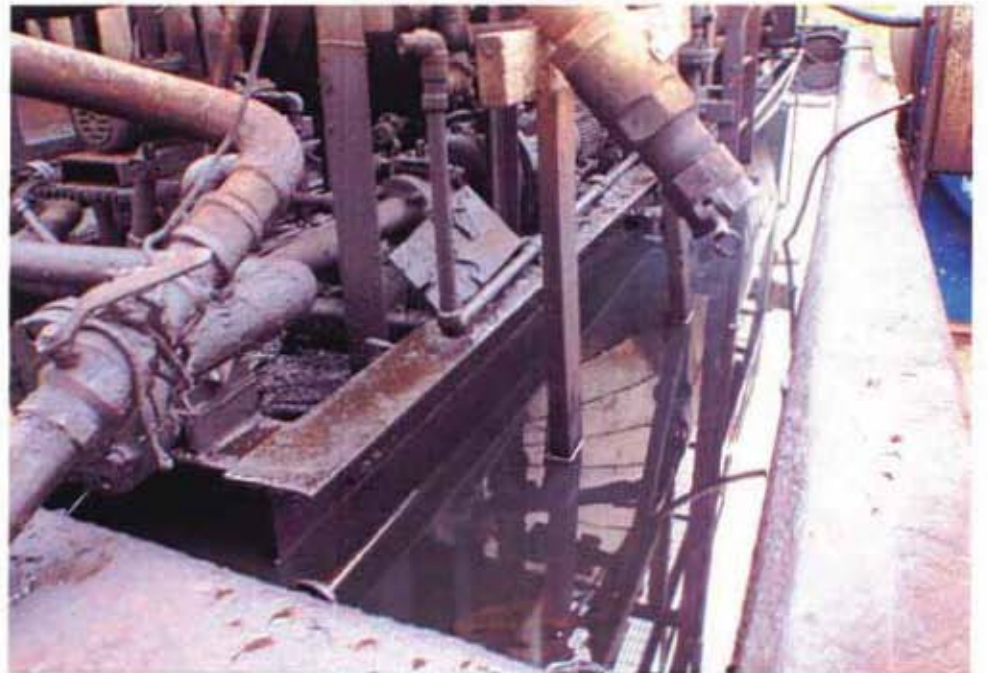
tceq 072210-14



tceq 072210-14



tceq 072210-13



tceq 072210-15

PHOTOGRAPHS TAKEN ON JULY 22, 2010, Tja



tceq 072210-18



tceq 072210-20



tceq 072210-17



tceq 072210-19

PHOTOGRAPHS TAKEN ON JULY 22, 2010, Tjg



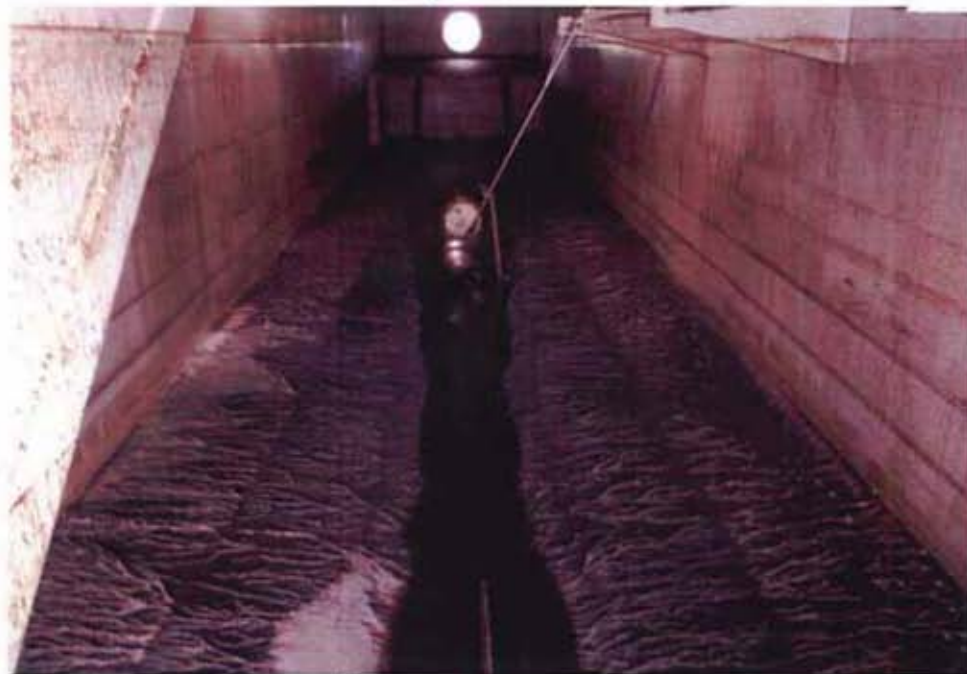
tceq 072210-22



tceq 072210-24



tceq 072210-21



tceq 072210-23

PHOTOGRAPHS TAKEN ON JULY 22, 2010, TjC



tceq 072210-24



tceq 072210-28

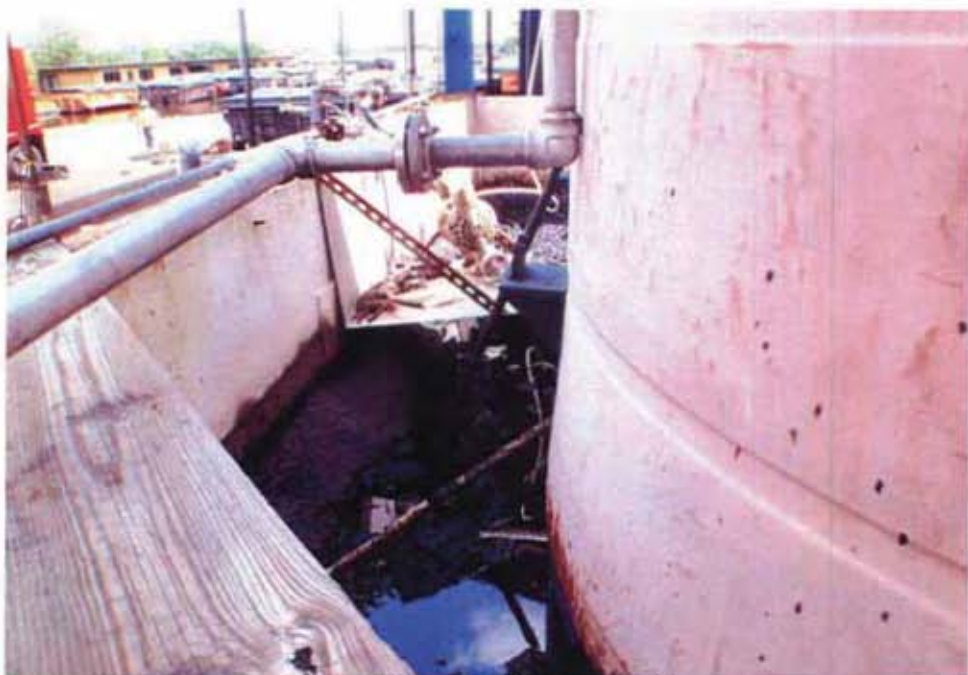


tceq 072210-25



tceq 072210-27

PHOTOGRAPHS TAKEN ON JULY 28, 2010, Tj



tceq072810-02



tceq072810-04



tceq072810-01



tceq072810-03

PHOTOGRAPHS TAKEN ON JULY 28, 2010

Tjh



tceq 072810-05

PHOTOGRAPHS TAKEN ON NOVEMBER 4, 2010, Tgh



tceq110410-02



tceq110410-04



tceq110410-01



tceq110410-03

PHOTOGRAPHS TAKEN ON NOVEMBER 4, 2010, Tgh



tceq 110410-06



tceq 110410-08



tceq 110410-05



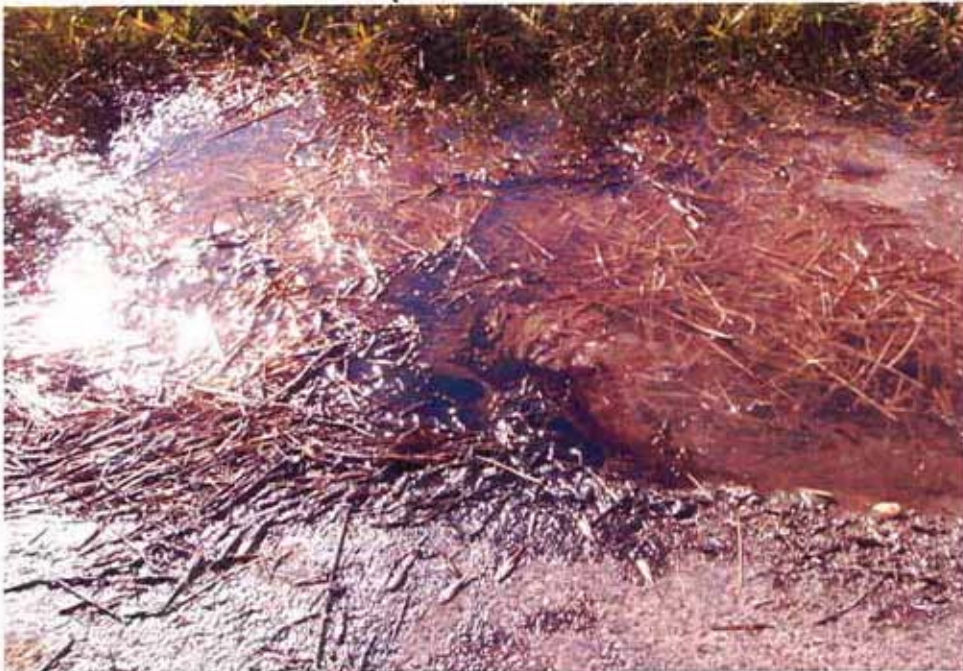
tceq 110410-07

PHOTOGRAPHS TAKEN ON NOVEMBER 4, 2010,

Tyler



tceq110410-10



tceq110410-09

PHOTOGRAPHS TAKEN ON NOVEMBER 5, 2010, TJC



tceq 110510-02



tceq 110510-04



tceq 110510-01



tceq 110510-03

PHOTOGRAPHS TAKEN ON NOVEMBER 5, 2010, Tgh



tceq 110510-06



tceq 110510-08



tceq 110510-05



tceq 110510-07

PHOTOGRAPHS TAKEN ON NOVEMBER 5, 2010, Tgh



tceq 110510-10



tceq 110510-12



tceq 110510-09

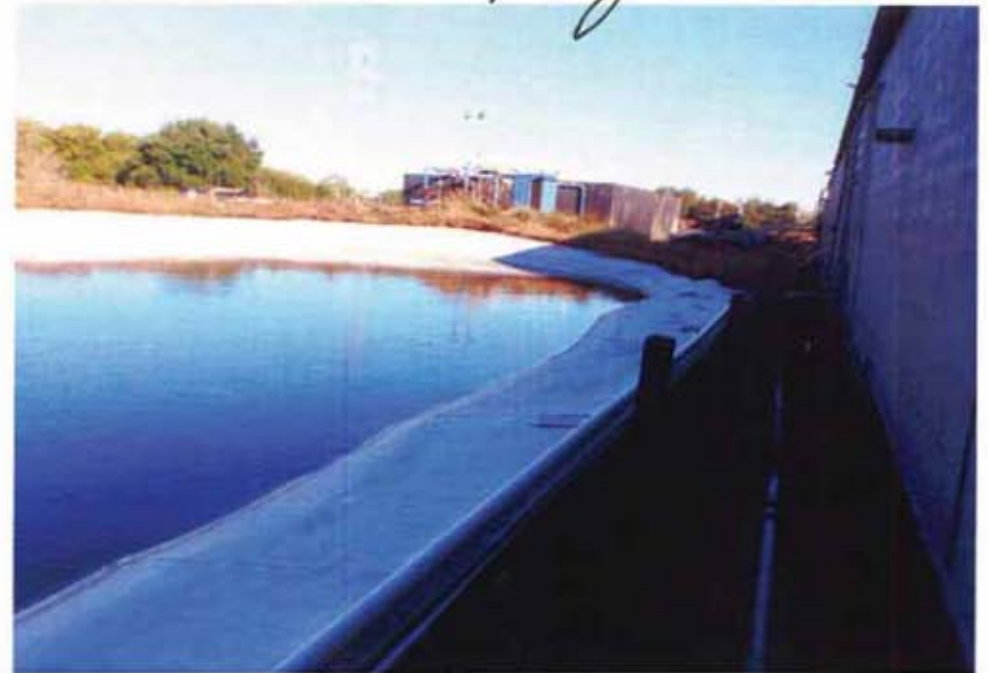


tceq 110510-11

PHOTOGRAPHS TAKEN ON NOVEMBER 5, 2010, Tgh



tceq110510-14



tceq110510-16



tceq110510-13



tceq110510-15

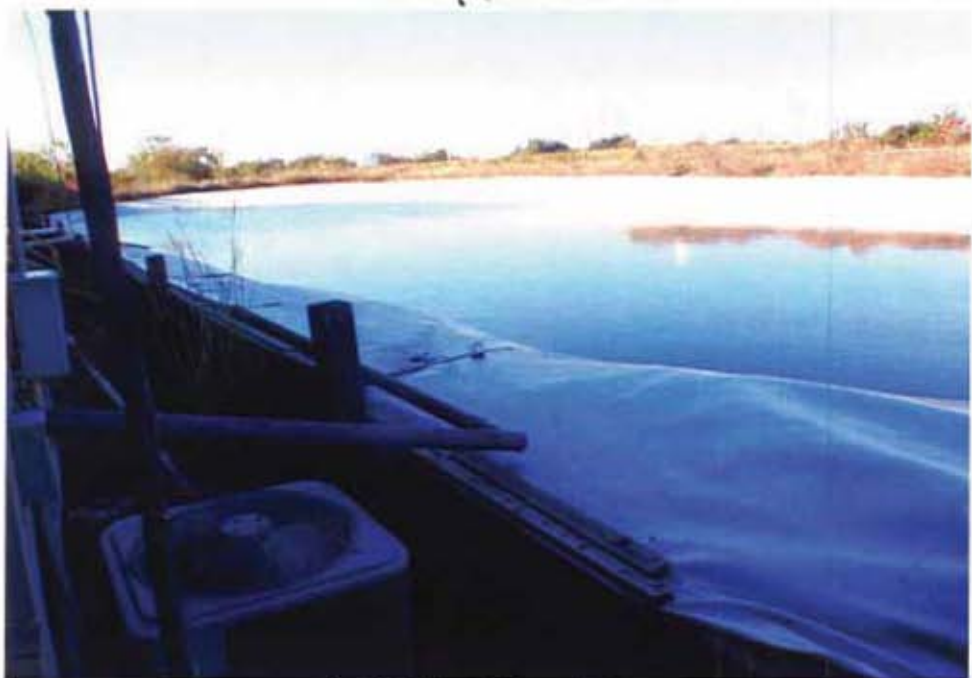
PHOTOGRAPHS TAKEN ON NOVEMBER 5, 2010, TjL



tceq 110510-18



tceq 110510-20



tceq 110510-17



tceq 110510-19

PHOTOGRAPHS TAKEN ON NOVEMBER 5, 2010, TJA



tceq 110510-22



tceq 110510-24



tceq 110510-21



tceq 110510-23

PHOTOGRAPHS TAKEN ON NOVEMBER 5, 2010, TJA



tceq 110510-26



tceq 110510-28



tceq 110510-25



tceq 110510-27

PHOTOGRAPHS TAKEN ON NOVEMBER 5, 2010, Tyl



tceq 110510-30



tceq 110510-32



tceq 110510-29



tceq 110510-31

PHOTOGRAPHS TAKEN ON NOVEMBER 5, 2010, Jgh



tceq 110510-34



tceq 110510-36



tceq 110510-33



tceq 110510-35

PHOTOGRAPHS TAKEN ON NOVEMBER 5, 2010, Tjh



tceq110510-38



tceq110510-40



tceq110510-37



tceq110510-39

PHOTOGRAPHS TAKEN ON NOVEMBER 5, 2010, Tjg



tceq110510-42



tceq110510-44



tceq110510-41



tceq110510-43

PHOTOGRAPHS TAKEN ON NOVEMBER 5, 2010, Tgh



tceq 110510-46



tceq 110510-48

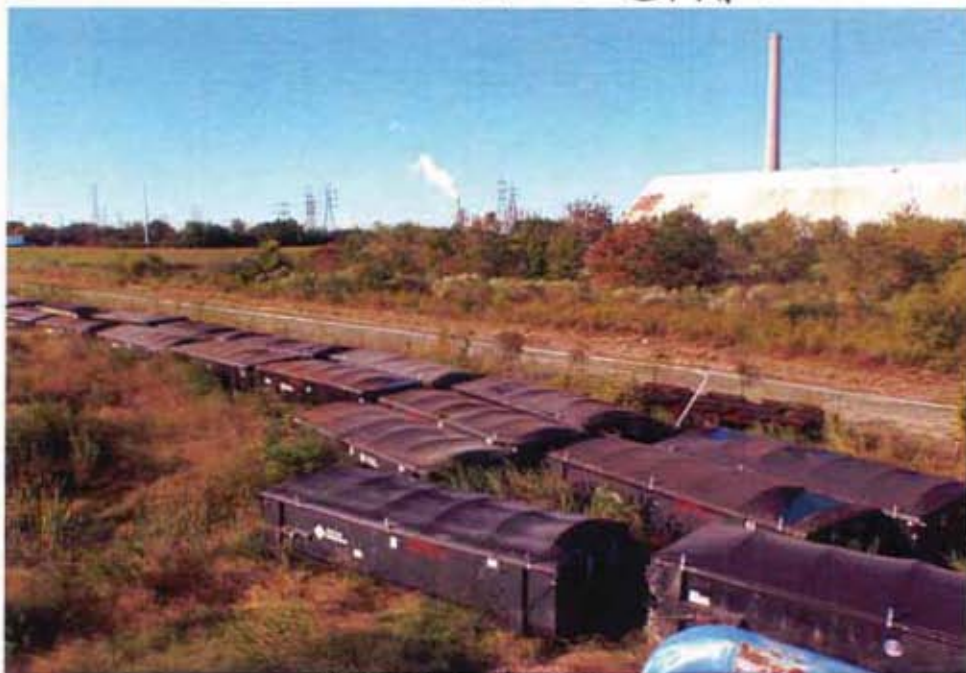


tceq 110510-45

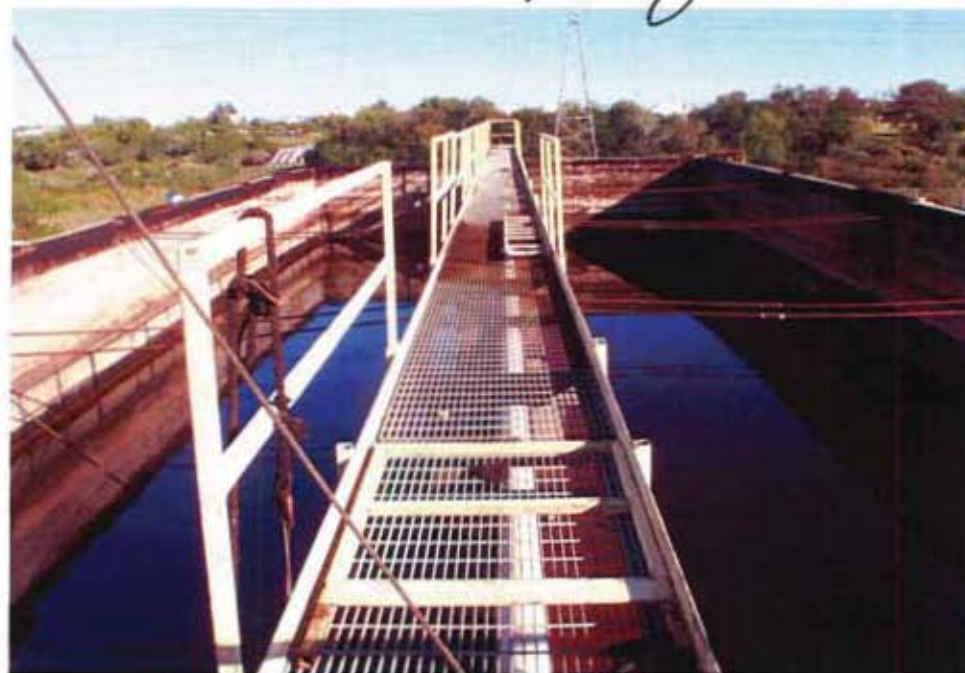


tceq 110510-47

PHOTOGRAPHS TAKEN ON NOVEMBER 5, 2010, T Jh



tceq 110510-50



tceq 110510-52



tceq 110510-49



tceq 110510-51

PHOTOGRAPHS TAKEN ON NOVEMBER 5, 2010, Tgh



tceq110510-54



tceq110510-56



tceq110510-53

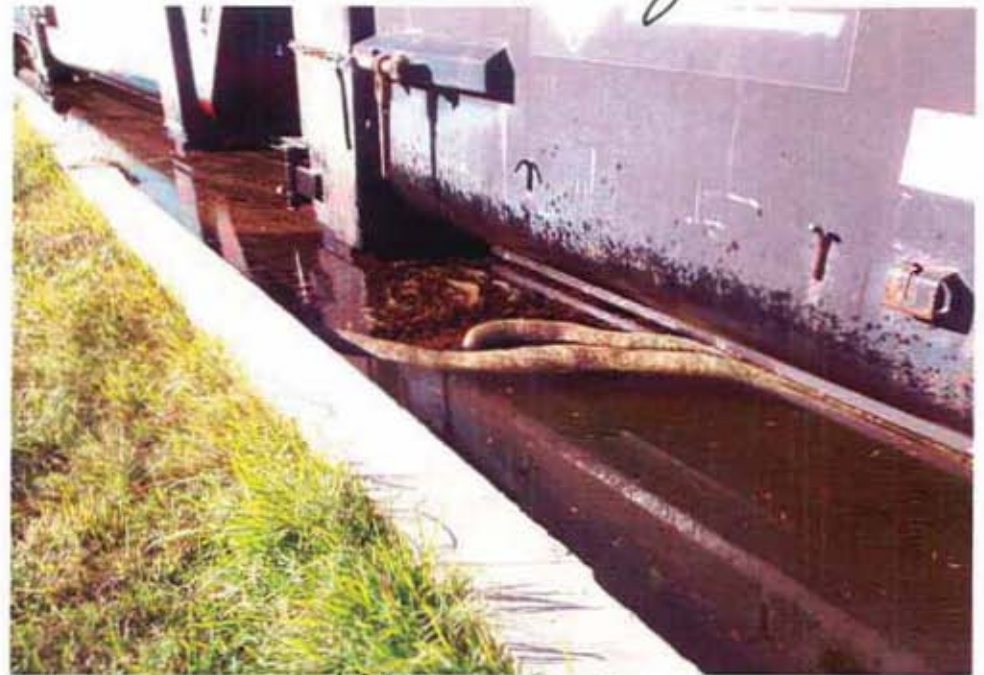


tceq110510-55

PHOTOGRAPHS TAKEN ON NOVEMBER 5, 2010, Tja



tceq 110510-58



tceq 110510-60



tceq 110510-57



tceq 110510-59

PHOTOGRAPHS TAKEN ON NOVEMBER 5, 2010, Jy



tceq110510-62



tceq110510-64



tceq110510-61



tceq110510-63

PHOTOGRAPHS TAKEN ON NOVEMBER 5, 2010, Tyla



tceq 110510-66



tceq 110510-68



tceq 110510-65



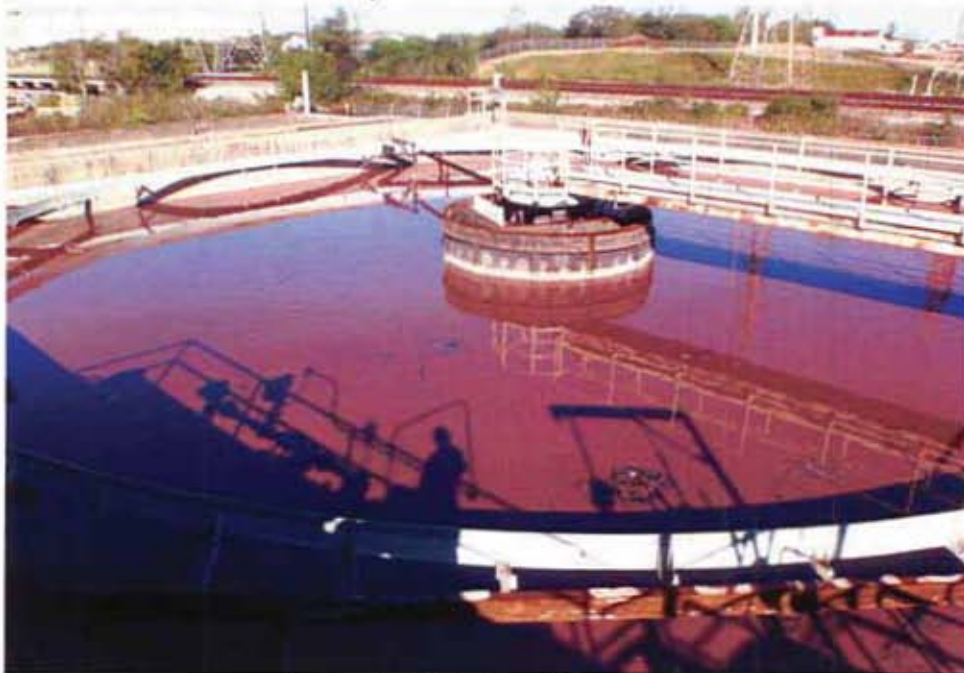
tceq 110510-67

PHOTOGRAPHS TAKEN ON NOVEMBER 5, 2010

TJA



tceq 110510-70



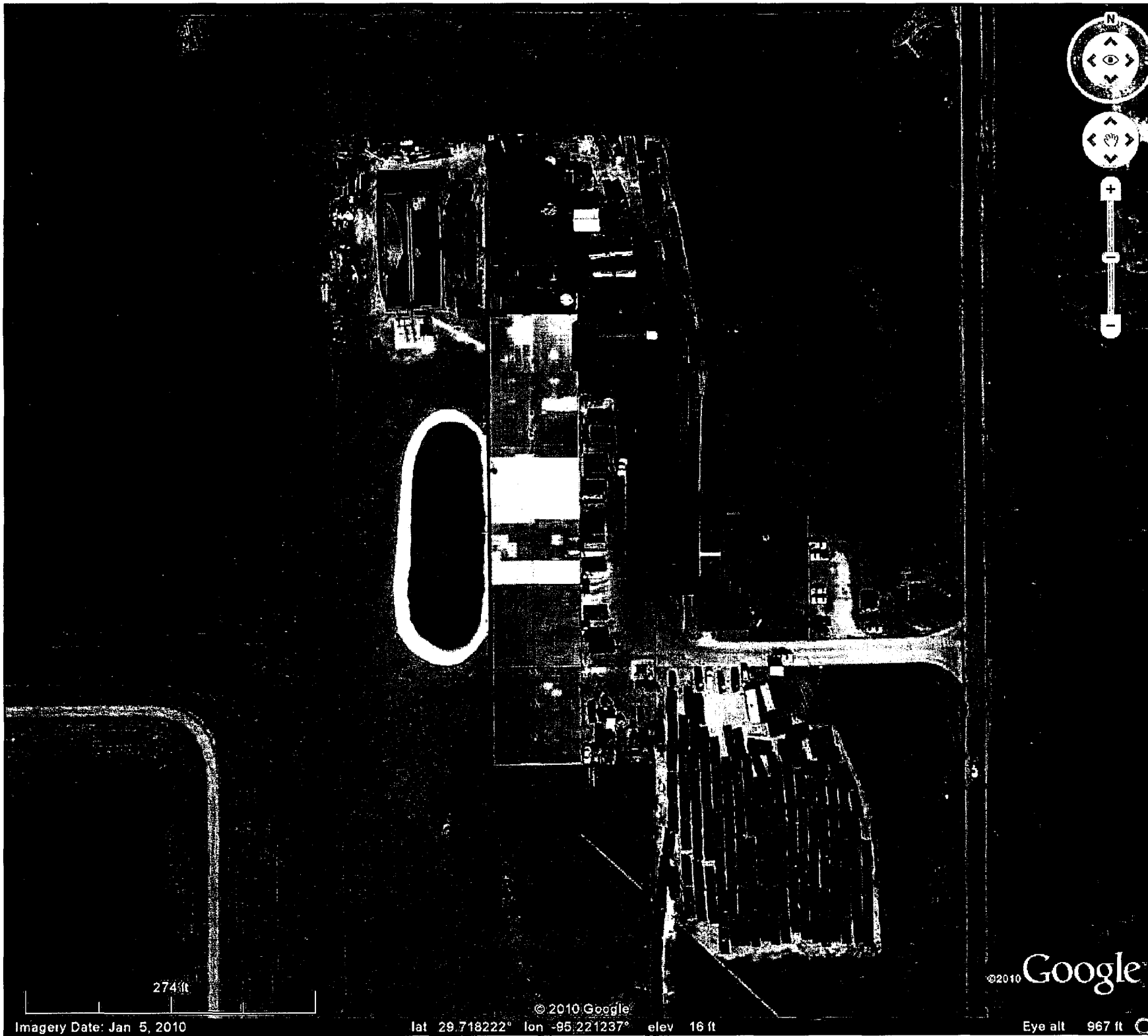
tceq 110510-69



tceq 110510-71

Reference 9:

Google Maps. US Oil Recovery LLC: Site Map located at 400 North Richey Street, Pasadena, Texas. Available at www.maps.google.com. Accessed on January 18, 2011. 1 page.



274 ft

Imagery Date: Jan 5, 2010

© 2010 Google

lat 29.718222° lon -95.221237° elev 16 ft

Google

Eye alt 967 ft

Reference 10:

**ACER Environmental Systems, Inc. Environmental Site Assessment Phase I for
Decker MC Kim Inc., La Porte, Texas. Dated September 13, 1991. 3 pages.**

DECKER MC KIM, INC.
LA PORTE, TEXAS

■ Environmental Site Assessment
Phase I

- September 13, 1991
- 400 North Richey Street
La Porte, Texas

ACER

Environmental Systems, Inc.
HOUSTON DALLAS OK CITY
(713) 481-8340

THENCE S87 DEGREES 37' 00" W. 4,309 FEET TO POINT FOR CENTER.

THENCE S2 DEGREES 28' 00" E. 75.62 FEET TO POINT FOR CORNER.

THENCE N87 DEGREES 37' 00" E. 5,002 FEET along the north right of way line of the Port Terminal Railroad to the POINT OF BEGINNING and containing 12.2335 Acres.

Zoning

Industrial

Land

Land contains approximately 12.2 acres (see site layout) with one property line (North) immediately adjacent to Vince Bayou.

Improvements

Manufacturing plant (37,392 square feet), rail spur, and office building (2,697 square feet).

History of Ownership

Date	Seller	Buyer
June 30, 1980	North American Hide Co.	CONVESSCO, S.A.
December 11, 1973	Chipman Chemical Co.*	North American Hide Co.
February 14, 1947	Stauffer Chemical Co.	Chipman Chemical Co.

* Certificate of merger between Chipman Chemical and Rhodia, Inc. filed on November 17, 1967

History of Easements

Date	Grantor	Grantee
May 5, 1971	Rhodia, Inc.	Texas Pipeline Co. for 10' Easement
March 15, 1964	Chipman Chemical Co.	City of Houston Water Main
January 2, 1961	Chipman Chemical Co.	Pan American Gas Pipeline for liquids or gas

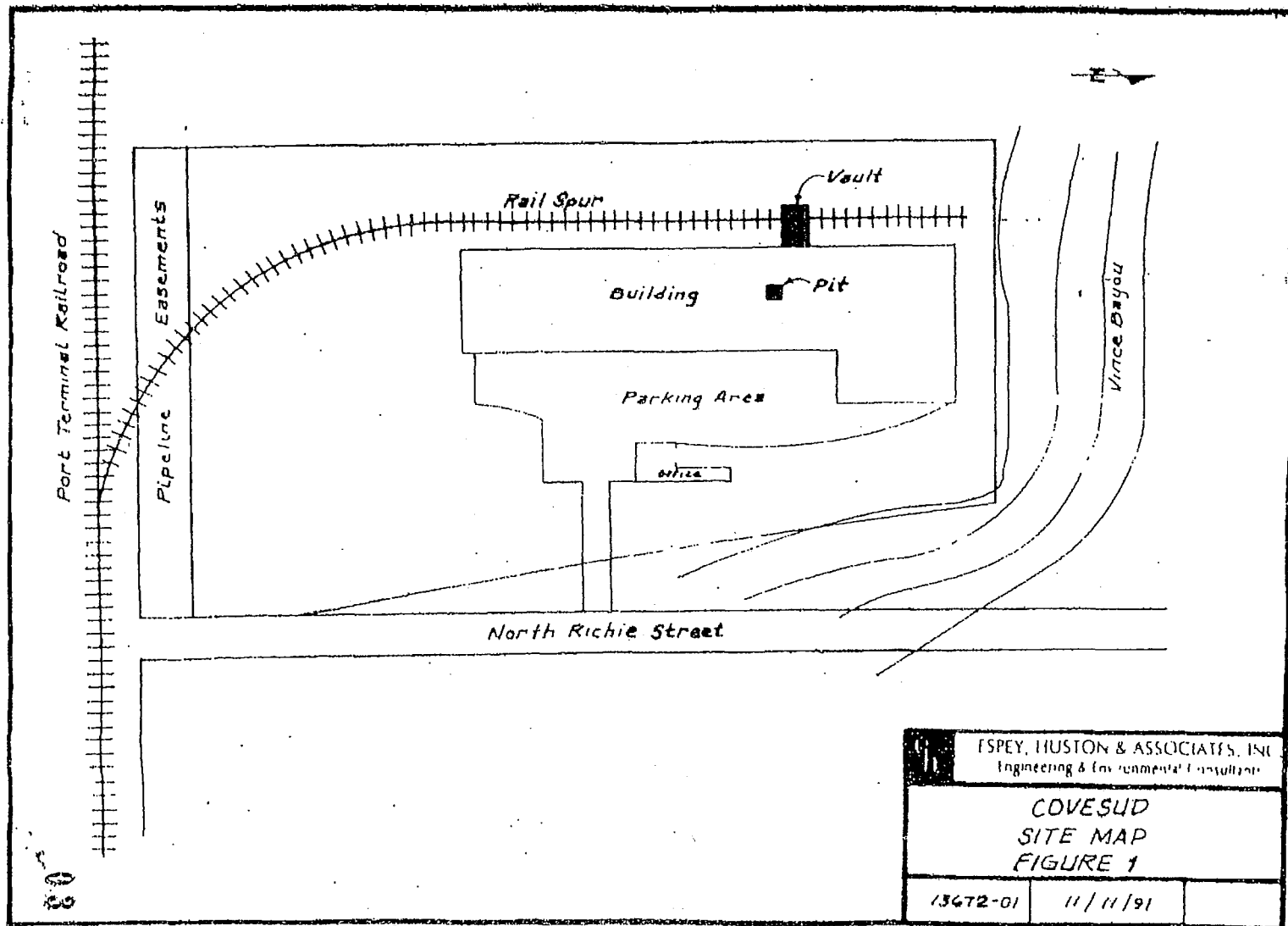


TABLE 1
SUMMARY OF ANALYTICAL RESULTS OF
VAULT AND TANK SAMPLES

<u>Sample Location</u>	<u>Arsenic (mg Kg)</u>	<u>Copper (mg Kg)</u>	<u>4,4'-DDE (µg/L)</u>	<u>Dieldrin (µg/L)</u>
Vault	76.8	1.1	35	1.1
Tank	106	9.6	-	-

Reference 11:

Texas Commission on Environmental Quality. Interoffice Memorandum: US Oil Recovery LLC Proposed Enforcement for Site Remediation. Dated September 8, 2006 and written by Edgar St. James, P.G. 5 pages.



INTEROFFICE MEMORANDUM

DATE: September 8, 2006

TO: David Bower, P.G.
Area Director
Field Operations Division

THRU: Nicole M. Bealle, P.G.
Manager, Waste Section
Houston Region Office

FROM: Edgar St. James, P.G.
Environmental Investigator
Houston Region Office

SUBJECT: US Oil Recovery LP
Proposed Enforcement for Site Remediation

Introduction

Soil samples have indicated that the property of US Oil Recovery LP (USOR) is contaminated with certain metals, total petroleum hydrocarbons (TPH), pesticides, volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs). Multiple businesses have operated on the 12.2-acre site since the 1940s including chemical companies, a cow hide exporter, companies whose operations are not known, renters who used the site for storage of various hard goods, and USOR. USOR is a used oil processor, who also operates a wastewater treatment plant for off-site generated nonhazardous and characteristically hazardous waste. They previously operated an MSW Type V Liquid Waste Processing Facility at this location, and will do so again under Registration No. 43020 after a pre-opening investigation. USOR claims the contamination is historical. As the current property owner, USOR has the initial accountability to address the contamination at the site. They were apparently aware of the potential for site contamination before buying the property based on their obtaining an indemnification in the deed of trust against liability for pre-existing contamination when they purchased the property from Hide Exporters of Texas, Inc. on December 13, 2004. Further, USOR has been responsible for unauthorized discharges since acquiring the site, as documented by TCEQ investigations. USOR has occupied the site since June 1, 2003.

A search for documentation pertaining to this property in TCEQ Central Records and Region 12 files found nothing older than 1991. There are no records available to substantiate what operations were conducted on the site prior to that time, and no records pertaining to alleged environmental cleanups before then. Although contaminated soil and groundwater was reported in a 1991 site assessment, this was apparently satisfactorily addressed through a notice of violation, formal enforcement, and submittal of remediation documentation to the agency. On October 17, 2003, a no further action required letter was issued to the then current property owner (Hide Exporters of Texas, Inc.) by the Remediation Division.

Background

The property is located at 400 N. Richey Street, Pasadena (Harris County), Texas in an industrial

and commercial area on Vince Bayou within Drainage Segment 1007 of the San Jacinto River Basin. There are two buildings on the site: a one story brick office building (approximately 3000 square feet) at the entrance to the facility, and a one story brick and metal rectangular structure (over 25,000 square feet) that was formerly a manufacturing plant. A tank farm is located at the north end of the larger building. An inactive rail spur extends along the back of the larger building. The facility is surrounded by a six-foot chain link fence.

USOR is registered in the following TCEQ programs: 1) Used Oil Program as a used oil transporter, transfer facility, processor, marketer, and used oil filter transporter, storage facility, processor (TCEQ ID No. A85794); 2) IHW Program as a generator, receiver, transporter, and transfer facility (TCEQ ID No. 52123, EPA ID No. TXR000051540); 3) Sludge Program as a transporter (TCEQ ID No. 23481); and 4) MSW Program as a Type V Liquid Waste Processing Facility (TCEQ ID No. 43020-Inactive). The facility treats off-site generated waste under Water Quality General Permit (WQG600000). USOR was issued a NOV on December 5, 2005 for an unauthorized discharge after contaminated soil was found adjacent to a manhole which overflowed, and an USOR storm water outfall.

The outfall and impacted soil is located off USOR property. To date, the facility advised that samples were collected and a determination was made that contamination is historical. No sample results or location information was submitted. USOR was issued a second NOV on February 6, 2006 by the Waste Section following an MSW Pre-Opening Investigation. One alleged violation pertained to a release of oily water behind the tank farm. By letter dated March 2, 2006, the facility indicated that it had excavated TPH contaminated soil from that area, and had taken confirmation samples, but results were pending. The analysis was never submitted. On April 4, 2006, USOR claimed in a meeting with Ms. Donna Phillips, Regional Director, that the property was contaminated by prior site owners, and requested that the TCEQ require the prior site owners to cleanup the site. On June 2, 2006, the December violation was modified to include additional contamination discovered at three locations behind the large building, including:

- 1) The area where USOR had the release behind the tank farm;
- 2) An area where stabilized arsenic contaminated soil was previously buried; and
- 3) A location adjacent to the rail spur.

Soil samples collected on February 23, 2006 found the following chemicals of concern at concentrations above regulatory limits: arsenic, lead, mercury, barium, ethyl benzene, styrene, tetrachloroethylene, toluene, benzo(a)pyrene, benzo(b)fluoranthene, 2-methylnaphthalene, naphthalene, aldrin, beta-benzenehexachloride (BHC), gamma-BHC (Lindane), dieldrin, and TPH. USOR has not responded to the June 2, 2006 letter.

History of Ownership

Effective Date	Owner and Mailing Address	Source of Information
December 13, 2004	U.S. Oil Recovery, L.L.P. 400 N. Richey Street Pasadena, Texas 77506	Deed of Trust
March 1, 2003	Hide Exporters of Texas, Inc.* PO Box 677 Seabrook, Texas 77586	Harris Co. Appraisal District
March 13, 2002	Hide Exporters of TX, Inc. PO Box 677 Seabrook, Texas 77586	Harris Co. Appraisal District

December 28, 2001	Mountain View Capital, LLC 6005 Fairmont Pkwy. Pasadena, Texas 77505	Harris Co. Appraisal District
October 20, 1995	Covesud, S.A. 15 Rue General Dufour Case Postale 5323 CH 1211 Geneve 11 Switzerland	Harris Co. Appraisal District
February 13, 1991	Client Growth Specialist, Inc. 1221 FM 359 Road Richmond, Texas 77469	Harris Co. Appraisal District
January 2, 1984	Covesud, S.A. % Charles G. Shook 206 S Second Street Richmond, Texas 77469	Harris Co. Appraisal District
June 30, 1980	Covesud, S.A. (no address indicated)	Phase 1 Environmental Site Assessment dated 09/13/1991
December 11, 1973	North American Hide Exporters, Incorporated** (no address indicated)	Phase 1 Environmental Site Assessment dated 09/13/1991
February 14, 1947	Chipman Chemical Co.*** (no address indicated)	Phase 1 Environmental Site Assessment dated 09/13/1991

* The President and Director is Mr. Diethelm Rehn, PO Box 1428, Sugar Land, Texas 77487. Per discussions with Ms. Andrea Todaro, Attorney at Law, 1404 Cypress Cove, LaPorte, Texas 77571, he has been affiliated with all the companies that have owned the property since 1973. Ms. Todaro represents Hide Exporters of Texas, Inc. She also stated that it was her understanding that Rhodia, Inc., who operated on the property until 1973, helped pay for environmental cleanups into the 1990s. However, she has no written documentation of this, nor has seen any.

** North American Hide Exporters, Incorporated (NAH) purchased the property from Rhodia, Inc. per Harris Co. deed records. According to the Secretary of State database, NAH was previously named Covesud North America, Inc. The name became inactive on April 26, 1972. The NAH name became inactive on February 20, 1984.

*** Chipman Chemical Co. purchased the property from Stauffer Chemical Co. A certificate of merger between Chipman Chemical Co. and Rhodia, Inc. was filed on November 17, 1967 according to a Phase 1 Environmental Site Assessment by Environmental Systems, Inc. dated September 13, 1991.

History of Contamination

Based on a telephone discussion on June 7, 2006 between the investigator and Mr. Floyd Dickerson, Environmental Manager, (Rhodia Inc. Baytown Facility), the Richey Street site was used by Rhodia to manufacture fertilizer and sulfuric acid. He was not aware of any environmental issues with the property, but admitted that he never worked at the site.

An Affected Property Assessment Report (APAR) dated May 16, 2002 by Hide Exporters of Texas, Inc. (Hide) indicated that the buildings were constructed in the late 1960's, and the property used for the tanning of leather. It stated that arsenic was used in the tanning process, and after NAH went bankrupt in the mid 1980s, arsenic contaminated soil was removed in 1990, placed into a pit on the west side of the large building, and mixed with lime to render it insoluble in water as calcium

arsenate. The use of arsenic was refuted in a May 24, 2002 letter from Ms. Ruth Lang, a former employee of NAH. She indicated that the site history and property use as represented in the APAR were incorrect. She wrote that Rhodia caused the arsenic contamination and cleaned up the property in the early 1970's according to the then current environmental standards. She further stated that after purchasing the site in 1973, NAH traded raw cattle hides, no tanning operations occurred, and no arsenic was used during their tenure. She additionally indicated that after the export company went out of business in the 1980's, the property and buildings remained vacant except for some short term leases for storage of various hard goods. During phone conversations with the investigator on June 8 and August 2, 2006, Mrs. Lang stated that the business of NAH involved the sorting of hides by grade and treating them with rock salt only. She said no other chemicals were used at the facility. Regarding the rail spur, she indicated that it was in place when NAH took over the property from Rhodia in 1973, and NAH used it until the early 1980's. She further indicated that NAH and all entities that owned the property after NAH, excluding USOR, were controlled by Mr. Diethelm Rehn, who hired her to work for NAH. He also brought her back in the mid 1990s to manage the property.

An October 30, 1991 report entitled Phase 2A Environmental Site Assessment Results prepared for Hoyer USA, Inc. by Espey, Huston & Associates, Inc. indicates that soil samples were collected next to a below grade concrete vault behind the rectangular building at the rail spur on September 30, 1991. The vault contained an open tank. Soil and groundwater samples from three borings found arsenic at levels exceeding 6,000 ppm in the soil and 5.77 ppm in the groundwater. There were also numerous pesticides identified in soil and groundwater samples, including: 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, dieldrin, the Lindane isomers alpha-BHC, beta-BHC and delta-BHC, methoxychlor, and endrin aldehyde (Endrin). The groundwater and soil samples from one boring contained various organic constituents, which appeared to be solvent and resin-related compounds according to the report.

A November 14, 1991 report entitled Phase 2B Environmental Site Assessment Results prepared for Covesud, S.A. by Espey, Huston & Associates, Inc. (EH&A) indicates that samples were collected from the vault, tank, and a below grade pit inside the rectangular building on October 14, 1991. The vault and tank were filled to the top with water. Arsenic (106 mg/kg) and copper (9.6 mg/kg) were detected in the tank. Arsenic (76.8 mg/kg), copper (1.1 mg/kg), 4,4'-DDE (35 microgram/L), and dieldrin (13 microgram/L) were found in the vault. Arsenic was detected at a level of almost 2,500 mg/kg, and TPH was detected at a level of 15,000 mg/L in the pit. There were also several organic compounds quantified in the pit sample, including 4-methylphenol, 2,4-dimethylphenol, phenanthrene, ethylbenzene, 4-ethylphenol, and 15 decane compounds. The report suggested the decane compounds were used as a solvent for animal fat and the oil may have been used to remove the fats from the hides prior to export. EH&A recommended that a soil and groundwater investigation be conducted at the site to fully define the rate, extent, and concentration of hazardous constituents in the soil and groundwater.

The Texas Water Commission became aware of the above information and issued an NOV on October 7, 1992 to Covesud, S.A. and Hoyer USA, Inc. citing Texas Waste Code 26.121 – Unauthorized Discharges Prohibited. The agency requested a detailed written plan for corrective action, including determination of the lateral and vertical extent of contamination.

The TCEQ enforcement database shows that the case against Covesud S.A. (Enforcement ID No. 1807) extended from October 7, 1992 until June 6, 1998 when it was referred to the Remediation Division. The database also indicates that the facility, advised by letter dated November 13, 1997 that they were working with Rhone-Poulenc (Rhodia), the previous operator, to share the cost of remediation. A sampling report dated March 2, 1998 was subsequently submitted to the agency, and based on its review by the Corrective Action Section additional sampling was requested by letter dated June 12, 2001. The 1998 sampling report is not available in the files. Soil and groundwater

samples were collected June 24, 2001, and analyzed for arsenic. An August 27, 2001 report concluded that all soils outside of the arsenic burial pit were below a concentration of 200 mg/kg. The report stated that the level of 200 mg/kg was established as the Texas Natural Resource Conservation Commission (TNRCC) mandated action level. It further indicated that no water sample (after filtering) was found to contain greater than the regulatory level of 0.05 mg/l arsenic, and no chlorinated pesticides were found in water from one borehole tested for those compounds. On January 14, 2002, the Corrective Action Section project manager requested collection of additional information and submittal of an APAR.

The APAR dated May 16, 2002 (referenced above) addressed 25 borings from which a total 56 soil samples and 25 water samples were collected and analyzed for arsenic. Following two Notices of Deficiency (NODs), 29 new soil samples and 10 new groundwater samples were obtained for arsenic and a response dated May 6, 2003 was submitted to the TCEQ. On August 18, 2003, the TCEQ gave conditional approval to the response. The soil assessment phase at the property was deemed complete, but more groundwater sampling was required. This was subsequently completed to the satisfaction of the agency. USOR, the new occupant of the property, decided to remove the arsenic waste from the pit behind the building. By letter dated September 22, 2003, Mr. Klaus Gennsler, President, notified the project manager that the contaminated soil had been removed from the "Buried Waste Pit." A total 1608 cubic yards were removed, characterized, and shipped to Waste Management's Atascocita Landfill (Permit No. 1307) for disposal. Mr. Gennsler provided the following documentation to the Corrective Action Section: sample analytical data, Waste Management's waste profile, photographs, and a list of manifest numbers pertaining to the shipments. The TCEQ approved this waste removal report on October 10, 2003. On October 17, 2003, the Corrective Action Section advised Hide that the TRRP Remedy Standard A - commercial/industrial PCLs for arsenic had been achieved such that no post-response action care was required.

Conclusion

There is no documentation available in TCEQ files to verify allegations that the property was contaminated by Rhodia, or that Rhodia actually participated in cleanup actions prior to or after selling the property to North American Hide Exporters, Incorporated in 1973. Furthermore, no evidence is available to support statements in the 2002 APAR indicating that arsenic contaminated soil was excavated in 1990 and stabilized in the pit behind the large building on the property. It's not clear when this activity took place and who was responsible. Based on TCEQ records, the USOR property (soil and groundwater) was determined to be contaminated with arsenic, pesticides, and various organics in 1991 during a Phase 2 Environmental Site Assessment. An enforcement case was initiated against Covesud, S.A. in 1992 requiring delineation of the contamination and remediation. The Remediation Division ultimately approved the response action, which was completed by Hide Exporters of Texas, Inc., on October 17, 2003.

Region 12 recommends initiating formal enforcement solely against USOR as the current property owner, who was aware of potential environmental problems with the site before purchasing the property on December 13, 2004, and obtained indemnification language in the deed of trust to protect USOR from liability for pre-existing environmental contamination. USOR occupied the property beginning June 1, 2003 and was present during a period of continued groundwater sampling and evaluation by Hide Exporters of Texas, Inc. In addition, USOR removed the stabilized arsenic contaminated soil from the burial pit in September 2003. Region 12 requests Field Operations opinion as to whether all prior site owners should be contacted by the Office of Legal Services for information concerning their site operations, chemicals used, releases to the environment, and response actions.

Reference 12:

Environmental Protection Agency (EPA). Letter of Issuance of Unilateral Administrative Order Pursuant to Section 7003 of the Resource Conservation and Recovery Act for US Oil Recovery. Dated June 21, 2010. Signed by John Blevins, Director of Compliance Assurance and Enforcement Division.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

June 21, 2010

CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7008 0150 0003 0411 5702

Mr. Klaus Genssler, President
U.S. Oil Recovery
26 Farnham Park Drive
Houston, TX 77024

Re: Issuance of Unilateral Administrative Order pursuant to Section 7003 of the
Resource Conservation and Recovery Act to U.S. Oil Recovery (TXR000051540)
and MCC Recycling (TXR000079409)

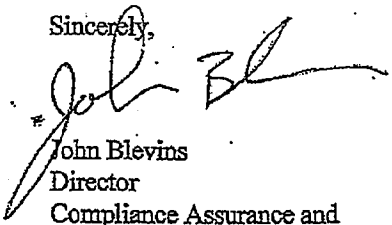
Dear Mr. Genssler:

As you know, in November and December, 2009, representatives from EPA, the Texas Commission on Environmental Quality, and Harris County conducted a multi-media inspection at the U.S. Oil Recovery and MCC Recycling facilities in Pasadena, Texas. As a result of that inspection, as well as reviews of prior investigations and records, EPA has determined that conditions exist at both facilities which pose a threat to human health and the environment.

Enclosed you will find a Unilateral Administrative Order (UAO) pursuant to Section 7003 of the Resource Conservation and Recovery Act. The UAO requires that you immediately take steps to characterize and remove all wastes on site and that you conduct delineation and remediation activities to address soil and groundwater contamination associated with spills and discharges of those wastes (see Section VII "Work to be Performed").

Additionally, the UAO requires that you notify EPA in writing of your intent to comply with this UAO within three (3) days (see Paragraph 37 of Section VII). EPA requests that you send this notification to Steve Gilrein via e-mail at gilrein.stephen@epa.gov or via facsimile at (214) 665-7446. If you have technical questions regarding the UAO, you may call Melissa Smith at (214) 665-7357. If you have legal questions, you may call Efren Ordoñez at (214) 665-2181.

Sincerely,


John Blevins
Director
Compliance Assurance and
Enforcement Division

Enclosure

cc: Bryan Sinclair, Director
Enforcement Division
Texas Commission on Environmental Quality



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

June 21, 2010

CERTIFIED MAIL - RETURN RECEIPT REQUESTED: 7008 0150 0003 0411 5719

CT Corporation System
350 N St. Paul Street, Suite 2900
Dallas, TX 75201

Re: Issuance of Unilateral Administrative Order pursuant to Section 7003 of the
Resource Conservation and Recovery Act to U.S. Oil Recovery (TXR000051540)
and MCC Recycling (TXR000079409)

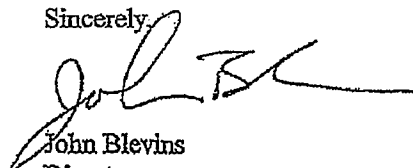
Dear Sir/Madam:

This letter is to inform you as the Registered Agent for U.S. Oil Recovery, LP, (USOR) that in November and December, 2009, representatives from EPA, the Texas Commission on Environmental Quality, and Harris County conducted a multi-media inspection at the USOR and MCC Recycling facilities in Pasadena, Texas. As a result of that inspection, as well as reviews of prior investigations and records, EPA has determined that conditions exist at both facilities which pose a threat to human health and the environment.

Enclosed you will find a Unilateral Administrative Order (UAO) pursuant to Section 7003 of the Resource Conservation and Recovery Act. The UAO requires that USOR and the other named Respondents immediately take steps to characterize and remove all wastes on site and that said Respondents conduct delineation and remediation activities to address soil and groundwater contamination associated with spills and discharges of those wastes (see Section VII "Work to be Performed").

Additionally, the UAO requires that USOR and the other Respondents notify EPA in writing of their intent to comply with this UAO within three (3) days (see Paragraph 37 of Section VII). EPA requests that you send this notification to Steve Gilrein via e-mail at gilrein.stephen@epa.gov or via facsimile at (214) 665-7446. If USOR has technical questions regarding the UAO, they may call Melissa Smith at (214) 665-7357. If USOR has legal questions, they may call Efren Ordoñez at (214) 665-2181.

Sincerely,


John Blevins
Director
Compliance Assurance and
Enforcement Division

Enclosure

cc: Bryan Sinclair, Director
Enforcement Division
Texas Commission on Environmental Quality

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

June 21, 2010

CERTIFIED MAIL – RETURN RECEIPT REQUESTED: 7008 0150 0003 0411 5726

Tommy Keiser, Plant Manager
U.S. Oil Recovery
400 North Richey Street
Pasadena, TX 77506

Re: Issuance of Unilateral Administrative Order pursuant to Section 7003 of the
Resource Conservation and Recovery Act to U.S. Oil Recovery (TXR000051540)
and MCC Recycling (TXR000079409)

Dear Mr. Keiser:

This letter is to inform you as the Plant Manager for U.S. Oil Recovery, L.P., (USOR) that in November and December, 2009, representatives from EPA, the Texas Commission on Environmental Quality, and Harris County conducted a multi-media inspection at the USOR and MCC Recycling facilities in Pasadena, Texas. As a result of that inspection, as well as reviews of prior investigations and records, EPA has determined that conditions exist at both facilities which pose a threat to human health and the environment.

Enclosed you will find a Unilateral Administrative Order (UAO) pursuant to Section 7003 of the Resource Conservation and Recovery Act. The UAO requires that USOR and the other named Respondents immediately take steps to characterize and remove all wastes on site and that said Respondents conduct delineation and remediation activities to address soil and groundwater contamination associated with spills and discharges of those wastes (see Section VII "Work to be Performed").

Additionally, the UAO requires that USOR and the other Respondents notify EPA in writing of their intent to comply with this UAO within three (3) days (see Paragraph 37 of Section VII). EPA requests that you send this notification to Steve Gilrein via e-mail at gilrein.stephen@epa.gov or via facsimile at (214) 665-7446. If USOR has technical questions regarding the UAO they may call Melissa Smith at (214) 665-7357. If USOR has legal questions, they may call Efrén Ordoñez at (214) 665-2181.

Sincerely,

John Blevins
Director
Compliance Assurance and
Enforcement Division

Enclosure

cc: Bryan Sinclair, Director
Enforcement Division
Texas Commission on Environmental Quality

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:

U.S. Oil Recovery, LP
(TXR000051540);
MCC Recycling, LLP
(TXR000079409);
Genssler Environmental Holdings, LLC;
and
Klaus Genssler

EPA DOCKET NO.
RCRA-06-2010-0923

RESPONDENTS

Proceeding under Section 7003 of
the Resource Conservation and
Recovery Act, 42 U.S.C. Section
6900, et seq., as amended.

RCRA § 7003 UNILATERAL ADMINISTRATIVE ORDER

TABLE OF CONTENTS

I	INTRODUCTION.....	-2-
II	JURISDICTION.....	-2-
III	DEFINITIONS.....	-3-
IV	FINDINGS OF FACT.....	-5-
V	CONCLUSIONS OF LAW AND DETERMINATIONS.....	-9-
VI	ORDER.....	-12-
VII	WORK TO BE PERFORMED.....	-12-
VIII	ADMINISTRATIVE DOCUMENTATION.....	-14-
IX	DOCUMENT CERTIFICATION.....	-14-
X	COMPLIANCE WITH OTHER LAWS.....	-15-
XI	RECORD RETENTION.....	-15-
XII	OTHER ENFORCEMENT ACTION.....	-16-
XIII	FORCE MAJEURE.....	-16-
XIV	RESERVATION OF RIGHTS.....	-17-
XV	OTHER CLAIMS.....	-18-
XVI	ADDITIONAL WORK.....	-18-
XVII	TERMINATION AND SATISFACTION.....	-19-
XVIII	SEVERABILITY.....	-19-
XIX	EFFECTIVE DATE.....	-19-
	CERTIFICATE OF SERVICE.....	-21-

I. INTRODUCTION

1. This Unilateral Administrative Order ("UAO") is issued to protect public health and the environment by the United States Environmental Protection Agency ("EPA"). This UAO requires the characterization and removal of all wastes causing or having the potential to cause contamination to the environment, and requires the delineation and remediation of contamination already caused by the releases of wastes in connection with the U.S. Oil Recovery, LP, ("USOR") facility located at 400 North Richey Street, and the MCC Recycling, LLP, ("MCC") facility located at 200 North Richey Street in Pasadena, Texas. In filing this UAO, the objectives of EPA are to remove and properly dispose of wastes containing hazardous constituents at this facility which are, or have the potential to be, released to the environment posing an endangerment to human health and/or the environment. Respondents shall finance and perform the Work in accordance with this UAO, plans, standards, specifications and schedules set forth in this UAO or developed by Respondents and approved by EPA pursuant to this UAO.
2. EPA has determined that Respondents have contributed to or are contributing to the past or present handling, storage, treatment, transportation or disposal of "solid and hazardous waste" or constituents of such wastes that may present an imminent and substantial endangerment to health or the environment. Specifically, handling of numerous waste streams as part of their Centralized Waste Treatment and Used Oil Handling processes resulted in discharges to the environment that may adversely affect the environment and human health.
3. EPA notified the State of Texas of this action pursuant to Section 7003(a) of RCRA, 42 U.S.C. § 6973(a), on June 9, 2010.

II. JURISDICTION

4. This UAO is issued to protect public health and/or the environment pursuant to Section 7003 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act ("RCRA"), and further amended by the Hazardous and Solid Waste Amendments of 1984 ("HSWA"), 42 U.S.C. § 6973. Section 7003(a) of RCRA authorizes the Administrator of the EPA to issue an Order whenever the Administrator receives evidence that the past or present handling, storage, treatment, transportation, or disposal of any solid waste or hazardous waste may present an imminent and substantial endangerment to health or the environment. The authority to issue this Order has been delegated by the Administrator of EPA to the Regional Administrator, EPA Region 6, by EPA Delegation Nos. 8-22-B and 8-22-C, dated May 11, 1994, and No. 8-23, dated March 6, 1986, and further delegated to the Director of the Compliance Assurance and Enforcement Division, Region 6 ("Director") by Delegations No. R6-8-22-A, dated July 27, 1995, and No. R6-8-23, dated July 27, 1995.

5. This UAO is issued to U.S. Oil Recovery, L.P., Genssler Environmental Holdings, L.L.C. (General Partner of U.S. Oil Recovery, L.P.), MCC Recycling, L.L.P., and Klaus Genssler (member of Genssler Environmental Holdings, L.L.C.), herein collectively known as "Respondents", past or present owner and/or operator of the facilities located 400 North Richey Street and 200 North Richey Street, Pasadena, Texas.

III. DEFINITIONS

6. Unless otherwise expressly provided herein, terms used in this UAO that are defined in RCRA shall have the meaning assigned to them in RCRA or its implementing regulations. Whenever the terms listed below are used in this UAO the following definitions apply:

"Acceptable" shall mean that the quality of submittals or completed work is sufficient in addressing the principal components of the required submittal or work so as to warrant EPA review in order to determine whether the submittal or work meets the terms and conditions of this UAO, including all attachments, scopes of work, approved work plans and/or EPA's written comments, and relevant guidance documents. Approval by EPA of submittals or work, however, establishes that those submittals were prepared, or work was completed, in a manner acceptable to EPA.

"Additional Work" shall mean any activity or requirement that is not expressly covered by this UAO or attachments but is determined by EPA to be necessary to fulfill the purposes of this UAO, which are to protect human health and/or the environment considering site-specific factors.

"Administrative Record" shall mean the record compiled and maintained by EPA in connection with the implementation of this UAO.

"UAO" shall mean this Unilateral Administrative Order, any amendments thereto, and any documents incorporated by reference into this UAO.

"CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*

"Comply or compliance" may be used interchangeably and shall mean completion of the work required by this Order including submittal of documents of a quality acceptable to EPA, in accordance with work plans approved by EPA and in the manner and time specified in an approved work plan, this UAO or any modification thereof. Respondents must meet both the quality (see definition of acceptable) and timeliness components of a particular requirement to be considered to be in compliance with the terms and conditions of this UAO.

"Data Quality Objectives" shall mean those qualitative and quantitative statements derived from the outputs of a scientific and legally defensible data collection planning process.

"Day" shall mean a calendar day unless expressly stated otherwise.

"Disposal" shall mean the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

"Effective Date" shall be the date of service of process upon USOR.

"Financial Assurance" shall be the demonstration that the financial resources are available to undertake the work required under this UAO.

"Hazardous constituents" shall mean those constituents listed in Appendix VIII to 40 C.F.R. Part 261 or any constituent identified in Appendix IX to 40 C.F.R. Part 264 or any approved subset of Appendix IX to 40 C.F.R. Part 264.

"Imminent and Substantial Endangerment" shall mean any release, or threatened release, but not requiring proof of actual harm, of hazardous waste or hazardous constituent, on or from the facility, which may pose endangerment to human health and/or the environment.

"Owner" shall mean the person who owns a facility or part of the facility.

"RCRA" shall mean the Resource Conservation and Recovery Act (also known as the Solid Waste Disposal Act), as amended, 42 U.S.C. § 6901, *et seq.*

"Release" shall mean any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, seeping, leaching, dumping, placing, or disposing into the environment of any solid or hazardous waste, hazardous constituents.

"Submittal" shall mean any document Respondents are required to send to EPA pursuant to this UAO, including but not limited to all the work plans, reports, and progress reports.

"Violation(s)" shall mean any actions, omissions, failures, or refusals to act by Respondents that result in a failure to meet any term or condition of this UAO.

"Work" shall mean any activity Respondents must perform to comply with the requirements of this UAO.

"Work Plan" shall mean the detailed plan(s) prepared by Respondents as required under this UAO. All work plans and modifications or amendments thereto are incorporated into this UAO and are an enforceable part of this UAO when approved by EPA.

IV. FINDINGS OF FACT

BACKGROUND

7. Respondents are current owners and/or operators of the USOR facility located at 400 North Richey Street, and the MCC facility located at 200 North Richey Street, in Pasadena, Texas.
8. USOR has operated as a centralized waste treatment and used oil recovery facility since October 2003. In 2008, USOR purchased the property at 200 North Richey Street, Pasadena, Texas, from the City of Pasadena (at that time it was a closed wastewater treatment plant) and established MCC at that location.
9. The USOR facility includes: 1) a 25,000 ft warehouse used to store wastes in 55-gallon drums and 300-gallon totes; 2) approximately twenty-four storage/processing tanks with an estimated total capacity of 440,000 gallons; 3) a stormwater retention pond; and 4) waste treatment units including a filter press, centrifuge, clarifier, dissolved air flotation (DAF) tank, slurry drier, aeration basin, and a bioreactor with two cells.
10. On July 29, 2003, USOR registered as a Used Oil Handler with the Texas Commission on Environmental Quality ("TCEQ"), which includes: marketer who directs shipments to burner, marketer who first claims used oil, processor, and transfer facility, under its TCEQ Registration No. A85794. Also, USOR registered as a Used Oil Filter Handler, which includes a storage facility and processor activities, also under its TCEQ Registration No. A85794.
11. On December 5, 2007, the TCEQ issued Waste Permit No. 52123 (hereinafter referred to as the "TCEQ Waste Permit") that authorized USOR to operate as a hazardous waste and nonhazardous solid waste wastewater treatment facility and as a nonhazardous industrial solid waste storage facility.
12. USOR is authorized under the TCEQ Waste Permit to receive industrial waste (class 1 and 2), characteristic hazardous waste, used oil, oily water, and recyclable hydrocarbons.

Docket Number RCRA-06-2010-0923
RCRA 7003 Unilateral Administrative Order
USOR, et al.

13. The TCEQ Waste Permit only authorizes USOR to receive the following hazardous wastes: flammable (hazardous waste code D001), corrosive (hazardous waste code D002), Benzene (hazardous waste code D018), Cresol (hazardous waste codes D023-D026), Dimethyltoluene (hazardous waste code D030), Methyl Ethyl Ketone (hazardous waste code D034), and Nitrobenzene (hazardous waste code D036).
14. The TCEQ Waste Permit does not allow for storage of hazardous wastes, but for the wastes to go directly into the treatment process (specifically into the Slurry Drier) when they are received.
15. MCC is adjacent to USOR and is located on both sides of Vince Bayou (which flows through the property). A foot bridge over the Bayou connects the east and west sides of the facility.
16. The MCC facility includes headworks, a trickling filter, several clarifiers and aeration basins, and a digester tank.
17. MCC is registered as a Used Oil Handler with TCEQ (Registration No. A85958).
18. According to USOR, USOR receives oily waste and industrial waste, and USOR allegedly pretreats the waste removing metals, solids, water insoluble organic compounds and part of the oil. After the USOR treatment process, USOR pipes the allegedly partially treated waste to MCC for further treatment. The MCC facility allegedly treats the waste to remove oil, solids, and water soluble compounds. After the alleged treatment process at MCC, USOR receives the alleged treated waste from MCC at the USOR Discharge Station, located on the MCC facility, and USOR then discharges the alleged treated water to the City of Pasadena Publicly Owned Treatment Works (POTW) via the Pasadena sewer collection system.
19. On March 14, 2009, USOR Bioreactor C-63 (hereinafter referred as "Bioreactor") that holds approximately 600,000 gallons had a structural failure resulting in a release to the environment. The Bioreactor contained Benzene (hazardous waste code D018) hazardous waste. USOR stopped using the bioreactor after the release but continued storing the hazardous waste in the Bioreactor for several months. As specified before, USOR was not authorized to store hazardous waste pursuant to the TCEQ Waste Permit.
20. On September 29, 2009, the U.S. Coast Guard issued an Administrative Order to USOR requiring USOR to remove the waste from the Bioreactor because of the inadequate structural integrity of the tank and the proximity of the tank to the Vince Bayou. USOR placed the hazardous waste from the Bioreactor in 210 roll-off bins throughout the USOR facility, including the facility parking lot. Each bin contains approximately 30 cubic yards of hazardous waste.

Docket Number RCRA-06-2010-0923
RCRA 7003 Unilateral Administrative Order
USOR, et al.

21. On November 16-20, and November 30 – December 1, 2009, EPA inspected USOR and MCC (hereinafter referred to as “the inspection”). At the inspection, officials from the Texas Department of Environmental Quality (TCEQ) and Harris County Public Health and Environmental Services (HCPHES) also participated.
22. During the inspection, EPA inspectors observed that some of the 210 roll-off bins were leaking onto the ground and that there was no secondary containment to prevent the further release of the hazardous constituents contained in the roll-off bins.
23. Samples of waste from several roll-off bins confirmed the contents to be hazardous waste using the Toxicity Characteristic Leaching Procedure (TCLP) analytical method (hazardous waste code D018 – characteristic hazardous waste for benzene; hazardous waste code D028 – characteristic hazardous waste for 1,2-dichloroethane; hazardous waste code D039 – characteristic hazardous waste for trichloroethylene):
 - a) Container No. RB 352-25:
 - Benzene – 2.07 parts per million (ppm; or mg/L)
 - 1,2-Dichloroethane – 0.573 ppm
 - b) Container No. RB 25-71:
 - Benzene – 4.01 ppm
 - Trichloroethylene – 3.99 ppm
 - 1,2-Dichloroethane – 0.912 ppm
 - c) Container No. RB 164-25:
 - Benzene – 3.40 ppm
 - Trichloroethylene – 1.32 ppm
 - 1,2-Dichloroethane – 1.04 ppm
24. Storm water runoff from some of the roll-off bins flows to USOR’s storm water basin. On December 2, 2009, EPA inspectors observed the storm water basin overflow with the discharge going to the Vince Bayou. An oily sheen was present in the off-site discharge.
25. During the inspection, EPA inspectors observed approximately 200 drums and totes in the USOR warehouse. Approximately 20 percent of the drums had hazardous waste labels. Sample results from drums that had hazardous waste labels confirmed that the drums contained hazardous waste (hazardous waste code D001 – characteristic hazardous waste for ignitability). Furthermore, samples collected from unlabeled drums were analyzed and confirmed that they contained hazardous waste (hazardous waste code D035 – characteristic hazardous waste for methyl ethyl ketone). USOR did not have authorization pursuant to the TCEQ Waste Permit to store hazardous waste in the warehouse or any other location on the USOR facility.
 - a) Labeled Drum: flash point < 140° F
 - b) Unlabeled Drum: Methyl Ethyl Ketone 95,400 ppm

26. During the inspection, EPA inspectors observed that some of the drums in the warehouse were badly deteriorated and that some drums were leaking onto the warehouse floor.
27. During the inspection, EPA inspectors observed a shipment of waste dumped directly from a truck to the floor of the filter press room. A sample of the waste confirmed that it was a hazardous waste with a flash point less than 140° F (hazardous waste code D001 – characteristic hazardous waste for ignitability). USOR is not authorized to store hazardous waste in the filter press room or any other part of the facility according to the Texas Waste Permit.
28. During the inspection, EPA inspectors observed hazardous waste (hazardous waste code D001 – characteristic hazardous waste for ignitability as indicated on a hazardous waste manifest) leaking from a truck and flowing into the storm water retention system.
29. After a review of USOR records and recent sampling results of effluent going from USOR to the Pasadena POTW, EPA has determined that on several occasions from July 1, 2009, to December 26, 2009, USOR discharged hazardous waste in its effluent to the Pasadena POTW. Based on the sample results, the effluent contained hazardous wastes exceeding the regulatory limit for Benzene (hazardous waste code D018) and Mercury (D009).
30. As a result of the inspection, EPA inspectors determined that USOR had received numerous shipments of hazardous waste that USOR is not authorized to receive and/or treat, such as Lead (D008), Vinyl Chloride (D043), Chromium (D007), and Silver (D011) and has received at least 50 shipments of metal wastes. As a result, it is not known what wastes are being stored in the Bioreactor, the roll-off bins, the drums and totes, the tanks, and other storage units at USOR.

STATE ENFORCEMENT ACTIVITIES

31. As a result of litigation between Harris County and TCEQ, a Texas State Court on March 11, 2010, issued a temporary injunction ordering Respondents to cease receiving wastewater or oily water, remove contents from all tanks and structures, stop using bioreactor for treatment or storage, conduct waste characterization of all roll-off bins, remove contents of bioreactor, among other requirements. The State Court set a trial date for November 8, 2010. This UAO is not meant to interfere with the injunctive relief and deadlines specified in orders that were issued by the State Court.
32. Respondents have failed to comply with the State Court's injunction orders and have not characterized the waste being stored in the roll-off bins and the bioreactor and have not removed the waste being stored at the USOR facility.

Docket Number RCRA-06-2010-0923
RCRA 7003 Unilateral Administrative Order
USOR, et al.

33. USOR and MCC are currently not operating, and on May 18, 2010, EPA was informed that USOR was not receiving water to the facility for failure to pay the City of Pasadena for water service. Of the ten to fifteen employees that worked at USOR and MCC, the staff has been reduced to four: the plant manager, a secretary, and two workers.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

34. Based on the Findings of Fact set forth above, and an Administrative Record supporting this UAO, EPA has determined that:
- a. Respondents are "persons" as defined in Section 1004(15) of RCRA, 42 U.S.C. § 6903(15).
 - b. USOR and MCC are facilities as defined by 40 C.F.R. § 260.10.
 - c. USOR, MCC, and Klaus Genssler are the current owners and/or operators of the sites.
 - d. The material in the leaking drums, totes, roll-off bins, tanks, and floor are discarded materials, and thus "solid waste" as defined in Section 1004(27) of RCRA, 42 U.S.C. § 6903(27).
 - e. Methyl ethyl ketone, benzene, 1,2-dichloroethane, trichloroethylene, are hazardous constituents under 40 C.F.R. Part 261. Additionally:
 - Methyl ethyl ketone is a characteristic hazardous waste at concentrations at or above 200 mg/L (hazardous waste code D035);
 - Benzene is a characteristic hazardous waste at concentrations at or above 0.5 mg/L (hazardous waste code D018);
 - 1,2-Dichloroethane is a characteristic hazardous waste at concentrations at or above 0.5 mg/L (hazardous waste code D028);
 - Trichloroethylene is a characteristic hazardous waste at concentrations at or above 0.5 mg/L (hazardous waste code D039).
 - f. Under 40 C.F.R. Part 261, a solid waste exhibits the characteristic of ignitability if it exhibits a flashpoint of less than 140° F.
 - g. Ignitable wastes under certain conditions could constitute a threat to human health by fire or explosion.
 - h. Methyl ethyl ketone, benzene, 1,2-dichloroethane, and trichloroethylene, under certain conditions of dose, duration, or extent of exposure, could constitute a threat to human health by inhalation and/or absorption. The following information was compiled from "Chemical, Physical, and Biological Properties of Compounds Present at

"Hazardous Waste Sites", prepared by Clement Associates, Inc., dated September 27, 1985; EPA's Integrated Risk Information System (IRIS); Clinical Toxicology of Commercial Products, Fifth Edition; 40 C.F.R. Part 141; National Institute for Occupational Safety and Health (NIOSH) Pocket Guide to Chemical Hazards, June 1997; and Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profiles:

Methyl ethyl ketone (MEK): MEK is used as a solvent. Acute (short-term) inhalation exposure to MEK in humans results in irritation to the eyes, nose, and throat. Limited information is available on the chronic (long-term) effects of MEK in humans. Chronic inhalation studies in animals have reported slight neurological, liver, kidney, and respiratory effects. No information is available on the developmental, reproductive, or carcinogenic effects of MEK in humans. Developmental effects, including decreased fetal weight and fetal malformations, have been reported in mice and rats exposed to MEK via inhalation and ingestion. IRIS lists MEK as a Group D, not classifiable as to human carcinogenicity.

Benzene: exposure is associated with chromosomal damage in both humans and animals, although it is not mutagenic in microorganisms. It is fetotoxic and lethal to embryos in experimental animals. Exposure to benzene has resulted in leukemia in humans. It also adversely affects the hematopoietic system and may harm the immune system. Very high concentrations in air (about 20,000 ppm) can cause death in minutes, with central nervous system depression and convulsions, and cardiovascular collapse. Vertigo, headache, nausea, drowsiness, and eventual unconsciousness result from milder exposures. Dermal adsorption of liquid benzene can result in erythema, blistering, and scaly dermatitis. It may cause irritation and damage to the eyes. The maximum contaminant level (MCL) for benzene in drinking water is 0.005 mg/l. IRIS lists benzene as a Group A (known human) carcinogen.

1,2-Dichloroethane (DCA): Exposure to low levels of DCA can occur from breathing ambient or workplace air. Inhalation of concentrated DCA vapor can induce effects on the human nervous system, liver, and kidneys, as well as respiratory distress, cardiac arrhythmia, nausea, and vomiting. Chronic (long-term) inhalation exposure to DCA produced effects on the liver and kidneys in animals. No information is available on the reproductive or developmental effects of DCA in humans. Decreased fertility and increased embryo mortality have been observed in inhalation studies of rats. Epidemiological studies are not conclusive regarding the carcinogenic effects of DCA, due to concomitant exposure to other chemicals. Following treatment by gavage (experimentally placing the chemical in the stomach), several tumor types were induced in rats and mice. EPA has classified DCA as a Group B2,

probable human carcinogen

Trichloroethylene (TCE): has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. TCE has induced hepatocellular carcinomas in mice and was mutagenic when tested using several microbial assay systems. Some harmful effects may persist following long-term exposure to TCE. This information is based largely on animal studies. These studies show that ingesting or breathing levels of TCE that are higher than typical background levels can produce nervous system changes and liver and kidney damage. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed at lower levels over long periods of time. The MCL for TCE in drinking water is 0.005 mg/l. IRIS lists the carcinogen assessment summary for TCE as withdrawn and under review. Under the Safe Drinking Water Act (SDWA), EPA has classified TCE as a Group B2 (probable human) carcinogen.

- i. Respondents' handling of hazardous wastes at the USOR and MCC facilities have resulted in releases of hazardous constituents to the environment and which poses an ongoing threat of additional releases which may present an imminent and substantial endangerment to human health and/or the environment within the meaning of Section 7003(a) of RCRA, 42 U.S.C. § 6973(a). Specifically:
 - Roll-off Bins/Bioreactor Tank: In 2009, the Bioreactor (600,000 gallon capacity) had a structural failure and released waste characteristically hazardous for benzene. The waste was subsequently placed in 210 30-cubic yard open-topped roll-off bins which have been observed to be leaking and have the potential to overflow to the ground and ultimately to Vince Bayou during rain events. Additionally, the bioreactor still contains waste and has not been cleaned and decontaminated as required under the Coast Guard Order.
 - Drums and Totes: Approximately 250 55-gallon drums and 300-gallon totes containing characteristically hazardous waste (ignitable, methyl ethyl ketone) were observed to be leaking and in deteriorating condition in the warehouse.
 - Floor of Filter Press Room: Ignitable hazardous waste was stored on the floor of the filter press room.
 - Stormwater retention system: Spills and leaks of hazardous waste throughout the facility are washed into the stormwater retention system during rain events. The stormwater retention system has been observed to overflow to Vince Bayou.
- j. Respondents have contributed and/or are contributing to the release of hazardous constituents to the environment by failing to properly manage wastes to prevent the release of hazardous waste into the environment.

- k. The actions required by this UAO are necessary to protect human health because continued release of these hazardous constituents to the environment could result in exposure to nearby residents and workers.

VI. ORDER

35. Based upon the administrative record for the Site and the Findings of Fact (Section IV) and Conclusions of Law and Determinations (Section V) set forth above, the following is hereby ordered. Respondents shall comply with all provisions of this UAO, including, but not limited to, all appendices to this UAO and all documents incorporated by reference into this UAO.
36. Respondents shall finance and perform the Work in accordance with this UAO, plans, standards, specifications and schedules set forth in this UAO or developed by Respondents and approved by EPA pursuant to this UAO.

VII. WORK TO BE PERFORMED

37. Respondents shall notify EPA in writing within three (3) working days of the Effective Date of this UAO of their intent to comply with this UAO. The notification should include the name, address, phone number, electronic mail address, and qualifications of their Project Manager. The EPA Project Manager/Enforcement Officer will be:

Melissa Smith (6EN-HC)
U.S. EPA Region 6
Hazardous Waste Enforcement Branch
1445 Ross Avenue
Dallas, Texas 75202
214-665-7357
smith.melissa@epa.gov

Each Project Manager (EPA's and Respondents') shall be responsible for overseeing the implementation of this UAO. EPA and Respondents have the right to change their respective Project Managers. The other party must be notified in writing at least 10 days prior to the change.

38. Respondents shall ensure that their Project Manager (original or replacement) has the ability and qualifications to effectively perform this role. All persons under the direction and supervision of Respondents' Project Manager must possess all necessary professional licenses required by federal and State law.

39. The EPA Project Manager shall be EPA's designated representative for the Site. Unless otherwise provided in this UAO, all reports, correspondence, notices, or other submittals relating to or required under this UAO shall be in writing and shall be sent to the EPA Project Manager at the addresses specified in Paragraph 37, unless notice is given in writing to Respondents of a change in address. Reports, correspondence, notices or other submittals shall be delivered by U.S. Postal Service, private courier service or electronic mail. All correspondence shall include a reference to the case caption EPA Docket No. RCRA-06-2010-0923.
40. Respondents shall undertake and complete all of the Work to the satisfaction of EPA, pursuant to RCRA § 7003, 42 U.S.C. § 6973. All of the Work performed under this UAO shall be under the direction and supervision of Respondents' Project Manager and shall be in accordance with the terms of this UAO. **Within 10 days of the Effective Date of this UAO**, Respondents shall notify EPA in writing of the names, titles and qualifications of the personnel, including agents, contractors, subcontractors, consultants and laboratories, to be used in carrying out the Work.
41. Respondents' obligation to perform the Work will begin on the Effective Date of this UAO.
42. The Work undertaken pursuant to this UAO shall be conducted in compliance with all applicable EPA guidances, policies and procedures, and with this UAO.
43. **Within 24 hours of the Effective Date of this UAO**, Respondents shall act to prevent drums, totes, tanks, roll-off bins that contain waste from leaking onto the ground or floor.
44. **Within 24 hours of the Effective Date of this UAO**, Respondents shall act to prevent any container located in the USOR warehouse from releasing emissions into the air or releasing liquids onto the warehouse floor. Furthermore, within 24 hours of the Effective Date of this UAO, Respondents shall remove the contents from drums that show signs of deterioration and shall place contents in containers that are in good condition.
45. **Within 24 hours of the Effective Date of this UAO**, Respondents shall begin sampling and analyzing all wastes on-site for all hazardous characteristics identified in 40 C.F.R. Part 261 Subpart C using EPA approved test methods, including analyzing the concentration of all contaminants identified in Table 1 of 40 C.F.R. Part 261.24, using the Toxicity Characteristic Leaching Procedure. Additionally, Respondents shall determine if all wastes on-site meet the criteria for listed hazardous waste identified in 40 C.F.R. Part 261 Subpart D. The waste on-site includes, but is not limited to, waste in drums, totes, tanks, roll-off bins, the storm water retention pond, the bioreactor, and the waste in the Filter Press Room. Analytical results shall be submitted within three (3) working days

of Respondents' receipt of each result by electronic mail and U.S. mail to the EPA project manager identified in Paragraph 37. All waste characterization shall be completed within 20 days of the Effective Date of this UAO.

46. Within 45 days of the Effective Date of this UAO, Respondents shall properly dispose off-site all wastes located on-site at a treatment, storage, and/or disposal facility that is authorized to receive those wastes. Documentation of removal of the waste shall be provided to EPA within three (3) working days of shipment of the waste off-site. Documentation shall include, but is not limited to, hazardous waste manifests and shall be sent by electronic mail and U.S. mail to the EPA project manager identified in Paragraph 37.
47. Within 60 days of the completion of removal of all wastes, Respondents shall submit a Work Plan for delineation and remediation of soil and groundwater contamination associated with the USOR and MCC facilities ("Work Plan"). The work plan shall include a timeline and a cost estimate for the work to be performed. Respondents shall implement the Work Plan upon notification of approval of the Work Plan by EPA.

VIII. ADMINISTRATIVE DOCUMENTATION

48. EPA retains the responsibility for the issuance of any decision documents related to the Site.
49. EPA will provide Respondents with copies of all decision documents for the Site.
50. EPA will determine the contents of the Administrative Record file for selection of the remedial action. Respondents shall submit to EPA documents developed during the course of performing the Work upon which selection of the response action may be based. EPA will maintain an administrative record file.
51. The administrative record supporting this UAO and the Work to be performed shall be available through the Freedom of Information Act (FOIA) for public examination at the Region 6 offices, 1445 Ross Avenue, Dallas, Texas, during normal business hours, Monday through Friday.

IX. DOCUMENT CERTIFICATION

52. Any report or other document submitted by Respondents pursuant to this UAO which makes recommendations as to whether or not further actions are necessary, or makes any representation concerning Respondents' compliance or noncompliance with any requirement of this UAO shall be certified by a responsible corporate officer of

Docket Number RCRA-06-2010-0923
RCRA 7003 Unilateral Administrative Order
USOR, et al

Respondents. A responsible corporate officer means: a president, secretary, treasurer, or vice-president in charge of a principal business function, or any other person who performs similar policy or decision-making functions.

53. The certification required by Paragraph 52 above, shall be in the following form:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature: _____

Name: _____

Title: _____

Date: _____

X. COMPLIANCE WITH OTHER LAWS

54. Respondents shall perform all actions required pursuant to this UAO in accordance with all applicable local, state, and federal laws and regulations. Respondents shall obtain or cause its representatives to obtain all permits and approvals necessary under such laws and regulations in a timely manner so as not to delay the Work required by this UAO.

XI. RECORD RETENTION

55. Respondents shall preserve all documents and information, including raw data, relating to the Work performed under this UAO, or relating to any solid waste or hazardous waste found at the Site, for 10 years following completion of the Work required by this UAO.
56. Respondents shall acquire and retain copies of all documents that relate to the Site that are in the possession of its employees, agents, accountants, contractors or attorneys.
57. Respondents shall make available to EPA all employees and persons, including contractors, who engage in activities under this UAO and ensure their cooperation with EPA with respect to this UAO.

58. After the 10 year retention period and 90 days before any document or information is destroyed, Respondents shall notify EPA that such documents and information are available to EPA for inspection, and upon request, shall provide the originals or copies (at no extra cost) of such documents and information to EPA. Notification shall be in writing and shall reference the effective date, caption, and docket number of this UAO and shall be addressed to the Associate Director of the Hazardous Waste Enforcement Branch, EPA Region 6, 1445 Ross Avenue, Dallas, Texas, 75202-2733. In addition, Respondents shall provide documents and information retained under this Section at any time before expiration of the 10 year retention period at the written request of EPA.
59. All documents pertaining to this UAO shall be stored by Respondents in a centralized location at the Site, or an alternative location mutually approved by Respondents and EPA, to promote easy access by EPA or its representatives.

XII. OTHER ENFORCEMENT ACTION

60. Failure or refusal to carry out the terms of this UAO in a manner deemed satisfactory to the EPA may subject Respondents' to a civil penalty enforcement action in an amount not to exceed \$7,500 for each day of noncompliance with this UAO, in accordance with Section 7003(b) of RCRA, 42 U.S.C. § 6973(b).

XIII. FORCE MAJEURE

61. Respondents shall perform all requirements under this UAO within the time limits established under this UAO, unless the performance is delayed by a force majeure. For purposes of this UAO, a force majeure is defined as any event arising from causes beyond the anticipation or control of Respondents that delays or prevents performance of any obligation under this UAO despite Respondents' best efforts to fulfill the obligation. Force majeure does not include financial inability to complete the Work or increased cost of performance or any changes Respondents' business or economic circumstances.
62. If any event occurs or has occurred that may delay the performance of any obligation under this UAO, whether or not caused by a force majeure event, Respondents shall orally notify EPA within 48 hours of when Respondents knew or should have known that the event might cause a delay. Such notice shall: (1) identify the event causing the delay, or anticipated to cause delay, and the anticipated duration of the delay; (2) provide Respondents' rationale for attributing such delay to a force majeure event; (3) state the measures taken or to be taken to prevent or minimize the delay; (4) estimate the timetable for implementation of those measures; and (5) state whether, in the opinion of Respondents, such event may cause or contribute to an endangerment to public health or the environment. Respondents shall undertake best efforts to avoid and minimize the delay. Failure to comply with the notice provision of this paragraph and to undertake best

efforts to avoid and minimize the delay shall waive any claim of force majeure by Respondents. Respondent shall be deemed to have notice of any circumstances of which their contractors had or should have had notice.

63. If EPA determines that a delay in performance or anticipated delay of a requirement of this UAO is or was attributable to a force majeure, then the time period for performance of that requirement will be extended as deemed necessary by EPA. If EPA determines that the delay or anticipated delay has been or will be caused by a force majeure, then EPA will notify Respondents, in writing, of the length of the extension, if any, for performance of such obligations affected by the force majeure. Any such extensions shall not alter Respondents' obligation to perform or complete other tasks required by this UAO which are not directly affected by the force majeure.

XIV. RESERVATION OF RIGHTS

64. Notwithstanding any other provisions of this UAO, the United States retains all of its authority to take, direct, or order any and all actions necessary to protect public health or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants, or contaminants, or hazardous or solid waste or constituents of such wastes, on, at, or from the Site, including but not limited to the right to information gathering, inspection authorities and rights, and enforcement actions under RCRA, CERCLA, and any other applicable statutes or regulations. EPA reserves the right to bring an action against Respondents under any applicable law for recovery of all response costs, including oversight costs, and past costs incurred by EPA with respect to the site that have not been reimbursed by Respondents, any costs incurred in the event that EPA performs entire corrective action, or any part thereof.
65. EPA reserves all of its statutory and regulatory powers, authorities, rights, and remedies, both legal and equitable, which may pertain to Respondents' failure to comply with any of the requirements of this UAO, including without limitation the assessment of penalties under Section 7003 of RCRA, 42 U.S.C. § 6973. This UAO shall not be construed as a covenant not to sue, release, waiver, or limitation of any rights, remedies, powers, claims, and/or authorities, civil or criminal, which EPA has under RCRA, CERCLA, or any other statutory, regulatory, or common law authority of the United States.
66. This UAO is not intended to be nor shall it be construed to be a permit. EPA's approval of any Work Plan and/or Sampling Plan does not constitute a warranty or representation that the Work Plan and/or Sampling Plan will achieve the required cleanup or performance standards. Compliance by Respondents with the terms of this UAO shall not relieve Respondents of their obligations to comply with RCRA or any other applicable local, state, or federal laws and regulations.

67. Notwithstanding any other provision of this UAO, no action or decision by EPA pursuant to this UAO, including without limitation, decisions of the Regional Administrator, the Director of the Compliance Assurance and Enforcement Division, or any authorized representative of EPA, shall constitute final agency action giving rise to any right of judicial review prior to EPA's initiation of a judicial action to enforce this UAO, including an action for penalties or an action to compel Respondents' compliance with the terms and conditions of this UAO.

XV. OTHER CLAIMS

68. By issuance of this UAO, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondents. The United States or EPA shall not be deemed a party to any contract entered into by Respondents or their officers, directors, employees, agents, successors, assigns, heirs, trustees, receivers, contractors, or consultants in carrying out actions pursuant to this UAO.
69. Nothing in this UAO shall constitute or be construed as satisfaction or a release of any claim, cause of action, or demand in law or equity against Respondents or any person, firm, partnership, subsidiary or corporation not a signatory to this UAO, for any liability it may have under RCRA, CERCLA, other statutes, or the common law, including, but not limited to, any claims of the United States for costs, damages, and interest under Sections 106(a) and 107(a) of CERCLA, 42 U.S.C. §§ 9606(a) and 9607(a).

XVI. ADDITIONAL WORK

70. EPA may determine or Respondents may propose that certain tasks are necessary in addition to or in lieu of the tasks included in UAO when such additional work is necessary to meet the objectives set forth in Section I (Introduction). EPA may determine that Respondents shall perform the additional work and EPA will specify, in writing, the basis for its determination that the additional work is necessary. Within 5 days after the receipt of such determination, Respondents shall have the opportunity to meet or confer with EPA to discuss the additional work. Respondents shall submit for EPA approval a Work Plan for the additional work. Such Work Plan shall be submitted within 10 days of Respondents' receipt of EPA's determination that additional work is necessary, or according to an alternative schedule established by EPA. Upon approval, Respondents shall implement the Work Plan in accordance with the schedule and provisions contained therein. The Work Plan for any additional work shall be incorporated by reference into this UAO. This provision is subject to Respondents' right to invoke dispute resolution.

XVII. TERMINATION AND SATISFACTION

71. The provisions of this UAO shall be deemed terminated and satisfied by Respondents upon written notice from EPA that Respondents have demonstrated that all of the terms of this UAO, including any additional work as may be performed pursuant to Section XVI (Additional Work) have been addressed to the satisfaction of EPA. Termination of this UAO shall not terminate Respondent's obligation to comply with: Section XI (Record Retention); and XIV (Reservation of Rights) of this UAO.

XVIII. SEVERABILITY

72. If a court issues an order that invalidates any provision of this UAO or finds that Respondents have sufficient cause not to comply with one or more provisions of this UAO, Respondents shall remain bound to comply with all provisions of this UAO not invalidated or determined to be subject to a sufficient cause defense by the court's order.

XIX. EFFECTIVE DATE

73. **This Order shall become effective upon service of process of this UAO upon USOR.**

74. Respondents may, within seven (7) days after the Effective Date of this UAO, request a conference with the EPA to discuss this UOA. If requested, the conference shall occur at the U.S. Environmental Protection Agency, Region 6, 1445 Ross Avenue, Dallas, Texas 75202-2733. This conference will be presided over by the Regional Judicial Officer (unless another on person has been designated). Requests for a conference shall be made by telephone followed by a written request confirmation mailed that day, by certified mail, returned receipt requested to Efren Ordonez, Assistant Enforcement Counsel (6RC-EW), U.S. Environmental Protection Agency, Region 6, 1445 Ross Avenue, Dallas, Texas 75202-2733. The request of a conference shall not alter the schedule or due date of deliverables required by this UAO.

75. The purpose and scope of this conference shall be limited to issues involving the implementation of the actions required by this UAO and the extent to which Respondents intend to comply with this UAO. This conference is not an evidentiary hearing, and does not constitute a challenge to this UAO. It does not give the Respondents a right to seek review of this UAO, or to seek resolution of potential liability, and no official stenographic record of the conference will be made. At any conference held pursuant to Respondents' request, the Respondents may appear in person, or by an attorney or other representative.

76. Within three (3) business days following the conference, the Regional Hearing Officer or designee shall prepare and sign a written summary of the proceeding. The summary shall address the significant arguments raised by the Respondents, recommend how the UAO should be modified, if at all, and contain the reasons for the revisions, if any. Based on a review of the administrative record, any probative information or argument made by the Respondents, and the

Docket Number RCRA-06-2010-0923
RCRA 7003 Unilateral Administrative Order
USOR, et al.

recommendation of the Regional Hearing Officer or designee, the Regional Administrator may, upon specific written notice to the Respondents, modify or revoke the UAO.

77. At any time, Respondents may submit additional documents or other materials to be included in the Administrative Record.

IT IS SO ORDERED.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 6

Date: 6/21/10

By: 

John Blevins

Director

Compliance Assurance and Enforcement Division

U.S. Environmental Protection Agency, Region 6

1445 Ross Avenue

Dallas, TX 75202-2733

Docket Number RCRA-06-2010-0923
RCRA 7003 Unilateral Administrative Order
USOR, et al

CERTIFICATE OF SERVICE

I hereby certify that the original and one copy of the foregoing UNILATERAL
ADMINISTRATIVE ORDER was filed with the Regional Hearing Clerk, EPA Region 6, 1445
Ross Avenue, Dallas, Texas 75202, and that a true copy of the same was sent by Certified Mail,
Return Receipt Requested to:

Date

Lori Jackson
Paralegal

Reference 13:

U.S. Oil Recovery. Letter of Request to Process Industrial Solid Waste without a Permit Pursuant to 30 TAC 335(d)(3). Dated August 26, 2003. 3 pages.



WWC# _____ DQC# 9/18-2
DUE DATE 12-8-03
P.M. Johnbull
TEAM ☒ 1 ☒ 2 ☐ UIC

720 Oates Road
Houston, Texas 77013
Tel. (713) 674-9211
Fax. (713) 674-9990

August 26, 2003

SWR#
52123

Mr. Enoch Johnbull, Supervisor
Texas Commission on Environmental Quality (TCEQ)
Industrial and Hazardous Waste Permits Section (MC130)
P.O. Box 13087
Austin, Texas 78711-3087

RECEIVED
NOV 14 2003
REGION 12

RE: Request to Process Industrial Solid Waste without a Permit Pursuant to 30 TAC
35.2(d)(3), U.S. Oil Recovery LLC, 400 North Richey, Pasadena, Texas Facility
335 (typo)

Dear Mr. Johnbull:

Accompanying this original, please find one (1) additional copy of this letter requesting approval to process influent non-hazardous landfill leachate, contaminated stormwater, wastewaters generated from industrial and non-industrial interceptor traps and Class I and Class II industrial wastes at the subject facility under the wastewater treatment unit exemption. U.S. Oil Recovery LLC is currently permitted by the TCEQ to operate in the confines of the Used Oil Regulation (40 CFR Part 279) as a Used Oil Handler and Used Oil Filter Handler Registration No. A85794 and a Municipal Solid Waste Transfer Registration No. MSW-40202. The facility also maintains a pretreatment permit with Gulf Coast Waste Disposal Authority (GCWDA) to discharge treated effluent directly to GCWDA's Washburn Tunnel water treatment facility via a 16" pipeline. (Attachment #1)

Industrial used oil typically consists of 1-70% petroleum oils/grease; 1-25% settled dirt and debris; and 1-99% wastewater containing suspended solids and oil. Although Industrial Used Oil streams that are being recycled are not typically considered wastes, they are not dissimilar to many Class I or Class II Industrial wastes. The Environmental Protection Agency (EPA) has determined under a new Clean Water Act rulemaking that some grit trap wastewaters, generated from commercial car washes, are industrial in nature. EPA has made this determination based upon data, which show grit trap wastes can expect to leach appreciable levels of industrial pollutants such as oils, organics, and metals; exactly the same types of pollutants found in Industrial Used Oil. Therefore, liquid waste generated containing similar industrial pollutants are covered under 40 CFR 437 of the Centralized Waste Treatment Effluent Guidelines and Pretreatment Standards. Under Section W of the final rulemaking published in the Federal Register on December 22, 2000, EPA stated, "...wastes produced from oil interceptors, however, which are designed to collect petroleum-based oils, sands, etc. [are] properly subject to this rule. Examples of facilities that produce oil interceptor waste include, but are not limited to auto and truck maintenance and repair shops; auto body and parts shops; car washes and gas stations."

All of these aforementioned industries ship large percentages of waste streams out under Part 279.

To properly manage wastewaters generated by non hazardous interceptor wastes / landfill leachate / contaminated stormwater and Class I and Class II industrial wastes for disposal under the wastewater treatment exemption, the facility will install eight (8) concrete pits having a total capacity of no greater than 51,000 gallons. Wastes with greater than 5% solids will be off-loaded into the pits to de-water and solidify the material with limekiln dust, cement kiln dust, sawdust and/or a filter press operation. Wastewaters with less than 5% solids, and decant from the pits, will be piped into a series of 400-bbl treatment tanks. The concrete pits and treatment tanks meet the requirements of a tank, tank system, and wastewater treatment units (devices) as defined under 30 TAC 335. The series of tanks will function to: 1) separate oily liquids and suspended solids from waters removed from wastewaters, 2) include the ability to introduce various water treatment chemicals that will break oil-water emulsions, adjust pH, and 3) precipitate heavy metals before discharging treated effluent to the pipeline feeding GCWDA.

Recovered oily liquids will be stored in other 400-bbl treatment tanks and recycled on-site to recover any usable portions. Solidified/dried solids will be shipped offsite for disposal to a licensed landfill. (Please see Attachment # 2 which shows the proposed process flow diagram for managing interceptor wastes, landfill, leachate, Class I and Class II industrial waste and contaminated stormwater.)

Non-hazardous interceptor wastes, landfill leachate, Class I and Class II industrial waste, and contaminated stormwater will only be managed in the equipment described above. All equipment approved under an industrial wastewater treatment exemption will be labeled as to its function and purpose. All equipment approved under an industrial wastewater treatment exemption will be operated within adequate concrete secondary containment. (Please see Attachment #3 which shows a survey of the property showing that it is outside the 100 year flood zone and a proposed site layout plan differentiating the various waste processing systems.)

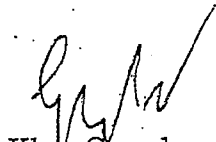
Generators of industrial and non-industrial interceptor wastes, Class I and Class II wastes, landfill leachate, and contaminated stormwater will be required by the facility to submit a Generator Waste Profile (GWP) prior to shipment. Based on the facility's knowledge and experience in treating similar waste, additional testing or a representative sample may be required. Shipments received will be subjected to fingerprint testing before unloading. This will insure that the wastes received are not hazardous wastes and are compatible with the treatment process. Fingerprint testing will include pH, specific gravity, flash point, physical appearance and organic halides analysis. Results of fingerprint testing will be recorded on the facility's operating log and electronic database. (Please see Attachment # 4 - Site Operating Plan, which includes examples of a GWP, operating log, and a proposed Waste Analysis Plan.)

As additional information, the facility is located in the Pasadena Industrial Ship Channel district. The facility is surrounded by Pasadena Paper, Crown Refinery, Lyondell-Citgo Refinery and several other large industries; all of which discharge to GCWDA. The nearest residential dwelling is located approximately ½ mile southwest of the facility.

Pursuant to certifying the accuracy of this written request, I hereby provide the following certification statement as a responsible officer of the company in charge of a principal business function, "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

If you have any questions concerning our petition, please contact me at 713.674.9211. We look forward to hearing from your office very soon. Thank you.

Sincerely,



Klay Genssler
President
U.S. Oil Recovery LLC

Attachments

Reference 14:

**Harris County Appraisal District: Real Property Account Information for US
Oil Recovery No. 2 LLP. Available at www.hcad.org. Accessed on April 6, 2011..**

1 page.

Wednesday, April 06, 2011

Tax Year: 2011

HARRIS COUNTY APPRAISAL DISTRICT
REAL PROPERTY ACCOUNT INFORMATION
0281740000031

 Print  E-mail

Ownership History | Related Accounts

Owner and Property Information

Owner Name & **US OIL RECOVERY NO 2 LLP**
Mailing Address: **PO BOX 399**
BELLAIRE TX 77402-0399

Legal **TR 12A-1 & 12D-1**
Description: **PASADENA OUTLOT 28**
Property **0 PASADENA OUTLOT 28**
Address: **PASADENA TX 77506**

State Class Code	Land Use Code	Building Class	Total Units
C2 -- Real, Vacant Commercial	4300 -- General Commercial Vacant	--	0

Land Area	Building Area	Net Rentable Area	Neighborhood	Neighborhood Group	Market Area	Map Facet	Key Map®
77,363 SF	0	0	9725.02	0	4027	5755B	536G

Value Status Information

Capped Account	Value Status	Notice Date	Shared CAD
No	Noticed	04/15/2011	No

Exemptions and Jurisdictions

Exemption Type	Districts	Jurisdictions	ARB Status	2010 Rate	2011 Rate	Online Tax Bill
None	021	PASADENA ISD	Not Certified	1.350000		
	040	HARRIS COUNTY	Not Certified	0.388050		View
	041	HARRIS CO FLOOD CNTRL	Not Certified	0.029230		
	042	PORT OF HOUSTON AUTHY	Not Certified	0.020540		
	043	HARRIS CO HOSP DIST	Not Certified	0.192160		
	044	HARRIS CO EDUC DEPT	Not Certified	0.006581		
	047	SAN JACINTO COM COL D	Not Certified	0.176277		
	074	CITY OF PASADENA	Not Certified	0.591593		

Valuations

Value as of January 1, 2010			Value as of January 1, 2011		
	Market	Appraised		Market	Appraised
Land	77,363		Land	77,363	
Improvement	0		Improvement	0	
Total	77,363	77,363	Total	77,363	77,363

5-Year Value History

Land

Market Value Land

Line	Description	Site Code	Unit Type	Units	Size Factor	Site Factor	Appr O/R Factor	Appr O/R Reason	Total Adj	Unit Price	Adj Unit Price	Value
1	4300 -- General Commercial Vacant	--	SF	77,363	1.00	1.00	1.00	--	1.00	1.00	1.00	77,363

Building

Vacant (No Building Data)

Reference 15:

Texas Commission on Environmental Quality. Investigation Report for MCC Recycling LLC. Dated June 3-9, 200 and written by Edgar St. James. 9 pages.

N/A

Texas Commission on Environmental Quality
Investigation Report
MCC RECYCLING LLP
CN603445016

MCC RECYCLING

RN105684302

Investigation # 760182

Incident #

Investigator: EDGAR ST. JAMES JR

Site Classification

MARKETERS

USED OIL FILTER HANDLER

USED OIL FILTER PROCESSOR

USED OIL FILTER STORAGE

USED OIL HANDLER

USED OIL PROCESSOR

Conducted: 06/03/2009 -- 06/12/2009

No Industry Code Assigned

Program(s): INDUSTRIAL AND
 HAZARDOUS WASTE
 NONPERMITTED
 USED OIL

Investigation Type : Compliance Investigation

Location : 200 N RICHEY ST., PASADENA,
 TX 77506

Additional ID(s) : F2039
 TXR000079409
 A85958

Address: 200 RICHEY ST;
 PASADENA, TX 77506

Activity Type : REGION 12 - HOUSTON
 IHWCDI - Case development investigation

Principal(s) :

Role	Name
RESPONDENT	MCC RECYCLING LLP

Contact(s) :

Role	Title	Name	Phone
Regulated Entity Contact	PRESIDENT	MR KLAUS GENSSLEF	Fax (713) 674-9990 Work (713) 674-9211
Participated in Investigation		MR DANNY MOORE	Work (713) 473-0013 Fax (713) 472-5668
Regulated Entity Mail Contact	PRESIDENT	MR KLAUS GENSSLEF	
Participated in Investigation	ENVIRONMENTAL, HEALTH AND SAFETY MANAGER	JAMES WISE	(713) 472-5668 Work (713) 473-0013

Other Staff Member(s) :

Role	Name
QA Reviewer	JON WELBORN
Supervisor	JASON YBARRA
Supervisor	NICOLE BEALLE

Associated Check ListChecklist NameUnit Name

MCC RECYCLING - PASADENA

6/3/2009 to 6/12/2009 Inv. # - 760182

Page 3 of 9

release mentioned above. Therefore, the unauthorized release of industrial wastewater from a clarifier on May 28, 2009 is not further addressed in Mr. St. James's report, or in the subsequent Notice of Enforcement issued to MCC. In addition to the unauthorized discharges, Mr. Fogarty's report (Investigation No. 748898) addressed other alleged violations.

The investigator returned to USOR on June 12, 2009 to review records, and meet with Mr. Genssler. Mr. Genssler stated that he never received the Exit Interview Form for MCC, so a copy was provided to him at this time. Mr. Genssler discussed his objections to Alleged Violation No. 2 for (a) Storing industrial wastewater and sludge received from USOR without authorization, and (b) Processing industrial wastewater received from USOR without authorization. He also discussed USOR's and MCC's current operations.

On July 10, 2009, a second Exit Interview Form for MCC was provided to Mr. Genssler via email (Attachment 5). It listed an additional issue regarding MCC's designation of 2,000 gallons of recovered oil as used oil on a bill of lading dated July 8, 2009. The facility was requested to submit documentation in support of its claim that the oil was used oil and not waste oil.

GENERAL FACILITY AND WASTE PROCESS INFORMATION

MCC is situated on approximately 4.8 acres in an industrial, commercial and residential area near Vince Bayou within Drainage Segment 1007 of the San Jacinto River Basin (Attachment 6). The facility is surrounded by a chain link security fence. Per Mr. Genssler, MCC was purchased on January 15, 2009 from the City of Pasadena (City). A document available through the Texas Secretary of State database shows the entity name as MCC Recycling LLP, registered on February 24, 2009 by Klaus Genssler (Attachment 7).

The site was the former location of the City's "old" Vince Bayou Wastewater Treatment Plant. The facility previously treated domestic wastewater. It is now being refurbished by Mr. Genssler to handle industrial wastewater. The facility is divided into two parts by Vince Bayou, which flows across the site. The east and west plants are connected by a foot bridge over the bayou. The west plant contains the headworks, a trickling filter, a primary clarifier, an aeration basin (recently converted from a clarifier), and a lift station for transferring wastewater from the west plant to the east plant. The east plant has a small clarifier near the pump room, and connected to the pump room is the digester tank. Further towards the back of the property is an aeration basin. The remains of a sand filter are next to the aeration basin. Two final clarifiers are behind the aeration basin. To the west of the sand filter is the former chlorine contact chamber.

MCC was registered in the TCEQ Used Oil Program under TCEQ ID No.: A85958 and EPA ID No.: TXR000079409 as a used oil processor, used oil marketer who first claims used oil meets specifications, used oil marketer who directs shipments to burners, used oil filter storage facility, and used oil filter processor on February 6, 2009 (Attachment 8). MCC was not registered as a receiver or generator of industrial waste. For the purpose of this investigation, the facility was assigned temporary Solid Waste Identification No.: F2039. A copy of MCC's Core Data Form is included in Attachment 9.

Investigation on June 3, 2009

The current operational status of the facility was discussed with Mr. Genssler. He indicated that he decided to route USOR's wastewater (which he described as oily) to MCC for two purposes: 1) further recovery of oil in accordance with MCC's used oil processing authorization and 2) after oil recovery, additional treatment of the wastewater to further reduce the wastewater's biological oxygen demand (BOD). The USOR wastewater is sent via a pipeline extending from 400 N. Richey St. to 200 N. Richey St. Once the water is processed, it will be returned to USOR's control and discharged to the City from a new sampling point in the northwest corner of the MCC facility. A USOR letter dated May 26, 2009 from Mr. Genssler to Mr. Robin Green of the City's Department of Public Works states that USOR contracted with its affiliate MCC Recycling LLP to further process its pretreated industrial water for biological treatment in order to reduce the level of organic

MCC RECYCLING - PASADENA

6/3/2009 to 6/12/2009 Inv. # - 760182

Page 5 of 9

investigator after USOR's receipt of the June 7, 2009 Exit Interview Form pertaining to alleged violations of USOR. He stated that he had not received the Exit Interview Form pertaining to alleged violations of MCC. However, Item No. 5 on the email stated that USOR sent oily water and oily solids for further processing at MCC, which he considers a permitted activity at MCC based on its used oil registration allowing storage and processing. A copy of the Exit Interview Form for MCC was provided to Mr. Genssler during the meeting, which he signed (Attachment 4), and discussed, as follows:

Alleged Violation No. 1 - Unauthorized release of industrial wastewater to the ground and Vince Bayou on May 28, 2009. Mr. Genssler offered no disagreement. This violation is addressed in Mr. Fogarty's MCC report (Investigation No. 748898).

Alleged Violation No. 2 - (a) Storing industrial wastewater and sludge received from USOR without authorization, and (b) Processing industrial wastewater received from USOR without authorization. Mr. Genssler disagreed and indicated that the "oily water" sent from USOR contains a recoverable amount of used oil. Therefore, he claimed, it can be stored and processed at MCC under MCC's used oil processor Registration No. A85958. When told about the secondary containment requirement for used oil storage/processing tanks, he contended that this requirement only applied to the primary clarifier on the west side of the MCC facility. Per Mr. Genssler, this is the first and only unit that receives the oily water. It is from this unit that the oil is recovered. The units beyond the primary clarifier he considers wastewater storage/processing vessels subsequent to the oil recovery operation. He further stated that used oil had been recovered at MCC from the first day that USOR started piping the oily water to MCC.

A review of a document entitled Process Description submitted with MCC's application for its Used Oil Processor registration (Attachment 8) indicated a different used oil processing scenario than the one described above by Mr. Genssler. It states that MCC will receive used oil and oily wastewater into one of three decant tanks on an alternating basis. Oil decanted from the three decant tanks will then be stored in a finished oil tank for subsequent sale, and water from the decant tanks will be pumped to the clarifier. There is no mention of receiving offsite generated oily sludge.

When asked how MCC stored the recovered oil since the tank for that purpose wasn't installed until approximately June 8, 2009, Mr. Genssler responded that the recovered oil went directly from the primary clarifier into a transport vehicle. The investigator requested records showing how much oil was recovered. Mr. Genssler agreed to provide this documentation as soon as he could get it together. It was not provided.

Mr. Genssler sent a letter dated June 11, 2009 to Mr. Tanveer Anjum, Manager, IHW Permits Section requesting confirmation of USOR's interpretation of rules pertaining to used oil. Specifically, Mr. Genssler asked the TCEQ to confirm the following: (1) the material sent from USOR to MCC is an oily water mixture in accordance with Texas Administrative Code, Title 30, Part I, Chapter 324, and is authorized to be delivered to a facility with a used oil registration; and (2) MCC is authorized to receive, store and process the oily water from USOR pursuant to its used oil registration. By letter dated July 16, 2009, from Ms. Diane Goss, Staff Attorney, Environmental Law Division, to Mr. Lawrence Rothenberg, Attorney, representing USOR, the TCEQ informed USOR that the IHW Permits Section declines to respond to Mr. Genssler's request because the request concerns the subject matter of a pending law suit. Both letters are included in Attachment 14.

On July 9, 2009, Mr. Genssler provided via email the "first manifest" of used oil (2,000 gallons) delivered from MCC to USOR (Attachment 15), and indicated that additional used oil would be shipped from MCC to USOR that day. On July 10, 2009, Mr. Genssler was sent an Exit Interview Form by email (Attachment 5) expressing concern that MCC called the recovered material "used oil" on the manifest (Bill of Lading No. 080709 dated July 8, 2009) instead of waste oil. He was advised that Region 12 considered this an Additional Issue and was requested to provide supporting documentation. The following records were requested: a hazardous waste determination based on

MCC RECYCLING - PASADENA

6/3/2009 to 6/12/2009 Inv. # - 760182

Page 7 of 9

City's Vince Bayou WWTP since March 1, 2009.

On June 8, 2009, a temporary injunction order was issued to the above-referenced Defendants by the District Court of Harris County, Texas, 125th Judicial District (Attachment 3). Among other things, it ordered the Defendants to (1) immediately cease unauthorized discharges from 200 N. Richey Road, (2) immediately notify Harris County Environmental Public Health and the State if there are any unauthorized discharges or spills from 200 North Richey Road, (3) immediately stop all intake to 200 North Richey Road until certain specified conditions are met, (4) a qualified wastewater operator must be on site at all times, (5) install an audible high level alarm on sumps and lift stations at the site at 200 North Richey Road, (6) any wastewater or oily wastewater or used oil that is removed from the site must be removed to a facility authorized to receive it by the TCEQ, and (7) remove within 60 days all contents from the chlorine contact chamber at 200 North Richey Road and dispose of it at a facility authorized by the TCEQ to receive the waste.

On August 20, 2009, it was found that MCC was accepting wastewater from USOR, and had modified their oil recovery operation from that described by Mr. Genssler on June 12, 2009. This was reported to the investigator by Mr. Charles Burner, Environmental Investigator of the Region 12 Waste Section, who accompanied Mr. Terry Vasut, Environmental Investigator of the Air Section, and Mr. Fogarty during an odor complaint investigation at MCC (Attachment 20). These individuals met with Mr. Andy Thomas, MCC Plant Manager, who went over the current plant operations. He explained that wastewater from USOR is piped through an oil/water separator located at the MCC headworks. Wastewater comes in one side of the oil-water separator, passes through the separator, and the recovered oil is stored in the oil/water separator until it is vacuumed off. Wastewater then passes on to the (primary) clarifier. The clarifier removes additional oil by skimming the oil off the surface of the water. The water is then pumped to the trickle filter, which is used as a holding tank. Water is pumped from the trickle filter to the aeration basin. Water from the aeration basin is pumped to a sump next to the clarifier where it gravity flows across the bayou to the east plant clarifier and digester, then to the City POTW. Mr. Burner did not visit the east plant. See Photos 23-25 in Attachment 11.

CONCLUSION

The industrial wastewater and sludge received by MCC is in violation of 30 TAC 335.2(n) for failure to obtain authorization prior to receiving industrial wastewater and sludge.

OUTSTANDING ALLEGED VIOLATION

The following alleged violation was documented during the Case Development Investigation conducted on June 3 and 12, 2009:

30 Texas Administrative Code (TAC) 335.2(n) - Permit Required (Category A2a)

MCC Recycling failed to obtain authorization (a) prior to storing industrial wastewater and sludge received from US Oil Recovery, and (b) prior to processing industrial wastewater received from US Oil Recovery. The facility does not have the permit required of commercial industrial solid waste facilities that receive industrial solid waste for discharge to a POTW. Additionally, MCC is not registered in the Solid Waste Program as a Receiver.

OUTSTANDING ADDITIONAL ISSUE

It is a concern that the material recovered from wastewater at MCC Recycling (MCC) is not used oil as indicated on Bill of Lading No. 080709 dated July 8, 2009, but is waste oil. The Bill of Lading showed 2,000 gallons were transported to US Oil Recovery (USOR). It is requested that MCC provide documentation in support of its claim that the recovered material was used oil. Documentation should include a hazardous waste determination based on sample analytical data, information on the sources of the material including the types of facilities that generated the material, how it was described on manifests/trip tickets when it was initially delivered to USOR

MCC RECYCLING - PASADENA

6/3/2009 to 6/12/2009 Inv. # - 760182

Page 9 of 9

Signed _____
Environmental Investigator

Date _____

Signed _____
Supervisor

Date _____

Attachments: (in order of final report submittal)

___ Enforcement Action Request (EAR)

___ Letter to Facility (specify type) : _____

Investigation Report

___ Sample Analysis Results

___ Manifests

___ NOR

___ Maps, Plans, Sketches

___ Photographs

___ Correspondence from the facility

___ Other (specify) : _____

N/A

Texas Commission on Environmental Quality

Investigation Report

MCC RECYCLING LLP
CN603445016

MCC RECYCLING

RN105684302

Investigation # 760182

Incident #

Investigator: EDGAR ST. JAMES JR

Site Classification

MARKETERS

USED OIL FILTER HANDLER

USED OIL FILTER PROCESSOR

USED OIL FILTER STORAGE

USED OIL HANDLER

USED OIL PROCESSOR

Conducted: 06/03/2009 -- 06/12/2009

No Industry Code Assigned

Program(s): INDUSTRIAL AND
HAZARDOUS WASTE
NONPERMITTED
USED OIL

Investigation Type : Compliance Investigation

Location : 200 N RICHEY ST., PASADENA,
TX 77506

Additional ID(s) : F2039
TXR000079409
A85958

Address: 200 RICHEY ST;
PASADENA, TX 77506

Activity Type : REGION 12 - HOUSTON
IHWCDI - Case development investigation

Principal(s) :

Role

Name

RESPONDENT

MCC RECYCLING LLP

Contact(s) :

Role

Title

Name

Phone

Regulated Entity Contact

PRESIDENT

MR KLAUS GENSSLEF

Fax (713) 674-9990

Work (713) 674-9211

Participated in Investigation

MR DANNY MOORE

Work (713) 473-0013

Fax (713) 472-5668

Regulated Entity Mail Contact

PRESIDENT

MR KLAUS GENSSLEF

Participated in Investigation

ENVIRONMENTAL,
HEALTH AND SAFETY
MANAGER

JAMES WISE

(713) 472-5668

Work (713) 473-0013

Other Staff Member(s) :

Role

Name

QA Reviewer

JON WELBORN

Supervisor

JASON YBARRA

Supervisor

NICOLE BEALLE

Associated Check List

Checklist NameUnit Name

MCC RECYCLING - PASADENA

6/3/2009 to 6/12/2009 Inv. # - 760182

Page 2 of 9

IHW GENERIC OTHER ISSUES OR VIOLATIONS (10 A85958 - Generic ITEMS)

Investigation Comments :

INTRODUCTION

On June 3 and 12, 2009, Mr. Edgar E. St. James, Jr. (the "investigator") of the Texas Commission on Environmental Quality (TCEQ) Region 12 - Houston Office, Waste Section, conducted an Industrial and Hazardous Waste (IHW) Case Development Investigation (CDI) of MCC Recycling (MCC) located at 200 N. Richey St., Pasadena (Harris County), Texas 77506. A location map is included in Attachment 1. The investigator was accompanied on the first day of the investigation by Ms. Stacy Pentecost and Mr. Gary Fogarty, Environmental Investigators of the Region 12 Water Quality Section. No advance notice of the investigations was given to the facility.

The primary purpose of the IHW CDI was to determine MCC's operational status. The facility had reported four unauthorized discharges of wastewater that occurred on May 15, 20, 26, and 28 2009 (Attachment 2). The wastewater allegedly originated from US Oil Recovery (USOR) located at 400 N. Richey St., Pasadena (Harris Co.), Texas 77506. On May 22 and 29, 2009, two temporary restraining orders (TROs) had been issued to U.S. Oil Recovery, L.P., Integrated MCC Solutions, LLC, and Genssler Environmental Holdings, LLC (Defendants) by the District Court of Harris County, Texas, 125th Judicial District, at the request of Harris County, Texas (Plaintiff) and the State of Texas acting by and through the TCEQ, a Necessary and Indispensable Party, to prevent any future discharges of wastewater (Attachment 3). The TROs ordered USOR to cease sending wastewater to MCC, and to seal every pipe, inlet, or other method of conveyance of wastewater from USOR to MCC. There were also several other requirements related to corrective measures to address the discharges.

In addition to the CDI of MCC, the investigator also conducted a CDI of USOR on June 3 and 12, 2009 to evaluate compliance with applicable IHW regulations. On or about March 1, 2009, USOR began diverting wastewater from the City of Pasadena's "new" Vince Bayou Wastewater Treatment Plant (WWTP) to MCC for storage and further treatment. The findings of the USOR investigation are discussed under Investigation No. 760180.

During the investigations, the facilities were represented by Mr. Klaus Genssler, President of MCC and USOR. A meeting was held with Mr. Genssler upon arrival at USOR at 9:55 AM on June 3, 2009. The purpose and scope of the investigations were discussed, and access to the properties was requested and granted. The investigations included a discussion of USOR's and MCC's current operations, an inspection of USOR's aeration basin (Bio-Reactors C-63 and C-64), and an inspection of the MCC facility.

An exit interview pertaining to both facilities was conducted on June 3, 2009 with Mr. Genssler, Ms. Pentecost, and Mr. Fogarty, and two additional USOR/MCC representatives in attendance: Mr. James R. Wise, EH&S Manager, and Mr. Thomas J. Lykos, Jr., Managing Director, Panoptic Strategic Advisors, LLC. TCEQ Exit Interview Forms were sent to Mr. Genssler by electronic mail (email) on June 7, 2009. The Exit Interview Form for MCC (Attachment 4) addressed two alleged violations: 1) unauthorized release of industrial wastewater from a clarifier on May 28, 2009, and 2) unauthorized storage and processing of industrial wastewater, and unauthorized storage of sludge. Records were requested on the amount of oil recovered at MCC during the period March 1 to May 31, 2009 based on Mr. Genssler's claims that this occurred. The subject CDI did not include a comprehensive Used Oil Investigation.

Also on June 3, 2009, Mr. Fogarty conducted an exit interview with facility representatives for the Industrial User Reconnaissance Investigation of USOR conducted that day (Investigation No. 760017), as well as for an Industrial User Reconnaissance Investigation of MCC (Investigation No. 748898) conducted on May 18, 20, and June 3, 2009. Mr. Fogarty addressed recent unauthorized discharges and releases at MCC in his report as alleged violations, including the May 28, 2009

MCC RECYCLING - PASADENA

6/3/2009 to 6/12/2009 Inv. # - 760182

Page 3 of 9

release mentioned above. Therefore, the unauthorized release of industrial wastewater from a clarifier on May 28, 2009 is not further addressed in Mr. St. James's report, or in the subsequent Notice of Enforcement issued to MCC. In addition to the unauthorized discharges, Mr. Fogarty's report (Investigation No. 748898) addressed other alleged violations.

The investigator returned to USOR on June 12, 2009 to review records, and meet with Mr. Genssler. Mr. Genssler stated that he never received the Exit Interview Form for MCC, so a copy was provided to him at this time. Mr. Genssler discussed his objections to Alleged Violation No. 2 for (a) Storing industrial wastewater and sludge received from USOR without authorization, and (b) Processing industrial wastewater received from USOR without authorization. He also discussed USOR's and MCC's current operations.

On July 10, 2009, a second Exit Interview Form for MCC was provided to Mr. Genssler via email (Attachment 5). It listed an additional issue regarding MCC's designation of 2,000 gallons of recovered oil as used oil on a bill of lading dated July 8, 2009. The facility was requested to submit documentation in support of its claim that the oil was used oil and not waste oil.

GENERAL FACILITY AND WASTE PROCESS INFORMATION

MCC is situated on approximately 4.8 acres in an industrial, commercial and residential area near Vince Bayou within Drainage Segment 1007 of the San Jacinto River Basin (Attachment 6). The facility is surrounded by a chain link security fence. Per Mr. Genssler, MCC was purchased on January 15, 2009 from the City of Pasadena (City). A document available through the Texas Secretary of State database shows the entity name as MCC Recycling LLP, registered on February 24, 2009 by Klaus Genssler (Attachment 7).

The site was the former location of the City's "old" Vince Bayou Wastewater Treatment Plant. The facility previously treated domestic wastewater. It is now being refurbished by Mr. Genssler to handle industrial wastewater. The facility is divided into two parts by Vince Bayou, which flows across the site. The east and west plants are connected by a foot bridge over the bayou. The west plant contains the headworks, a trickling filter, a primary clarifier, an aeration basin (recently converted from a clarifier), and a lift station for transferring wastewater from the west plant to the east plant. The east plant has a small clarifier near the pump room, and connected to the pump room is the digester tank. Further towards the back of the property is an aeration basin. The remains of a sand filter are next to the aeration basin. Two final clarifiers are behind the aeration basin. To the west of the sand filter is the former chlorine contact chamber.

MCC was registered in the TCEQ Used Oil Program under TCEQ ID No.: A85958 and EPA ID No.: TXR000079409 as a used oil processor, used oil marketer who first claims used oil meets specifications, used oil marketer who directs shipments to burners, used oil filter storage facility, and used oil filter processor on February 6, 2009 (Attachment 8). MCC was not registered as a receiver or generator of industrial waste. For the purpose of this investigation, the facility was assigned temporary Solid Waste Identification No.: F2039. A copy of MCC's Core Data Form is included in Attachment 9.

Investigation on June 3, 2009

The current operational status of the facility was discussed with Mr. Genssler. He indicated that he decided to route USOR's wastewater (which he described as oily) to MCC for two purposes: 1) further recovery of oil in accordance with MCC's used oil processing authorization and 2) after oil recovery, additional treatment of the wastewater to further reduce the wastewater's biological oxygen demand (BOD). The USOR wastewater is sent via a pipeline extending from 400 N. Richey St. to 200 N. Richey St. Once the water is processed, it will be returned to USOR's control and discharged to the City from a new sampling point in the northwest corner of the MCC facility. A USOR letter dated May 26, 2009 from Mr. Genssler to Mr. Robin Green of the City's Department of Public Works states that USOR contracted with its affiliate MCC Recycling LLP to further process its pretreated industrial water for biological treatment in order to reduce the level of organic

MCC RECYCLING - PASADENA

6/3/2009 to 6/12/2009 Inv. # - 760182

Page 4 of 9

compounds, but there is no mention of planned or proposed oil recovery operations (Attachment 10). Mr. Genssler stated that the City may be ready to accept the wastewater directly from USOR as soon as June 3, 2009. The investigator informed Mr. Genssler that MCC was not authorized to receive wastewater. This is addressed below in the section entitled Outstanding Alleged Violation.

During Mr. Genssler's discussion with Mr. Fogarty and Ms. Pentecost, it was revealed that USOR combined its industrial wastewater discharge with approximately 1,000 gallons per day of domestic wastewater from the USOR site. The combined stream was discharged to the POTW and then to MCC. This is a pretreatment issue addressed in Mr. Fogarty's USOR report (Investigation No. 760017).

The investigators proceeded to the MCC facility at approximately 11:00 AM on June 3, 2009. They were met at the site by Mr. Danny Moore of USOR who accompanied them around the property. Mr. Wise also met the investigators at MCC. During the investigation, no wastewater was crossing the headworks indicating USOR was not discharging to MCC. Wastewater was observed in the primary clarifier (capacity of 288,000 gallons) and the aeration basin. The primary clarifier and aeration basin had an oily appearing liquid floating on the surface of the wastewater. Soil had been excavated from the east side of the primary clarifier for future placement of a tank to hold recovered oil. Photos 1-6 in Attachment 11 show the units of the west plant.

On the east side of the bayou, the investigator visited the digester tank (capacity of 610,000 gallons), the aeration basin, the clarifier near the pump room, and the chlorine contact chamber. The digester, aeration basin, and clarifier were full of wastewater. An oily film was visible on much of the wastewater indicating MCC's oil recovery at the primary clarifier was not totally effective. The chlorine contact chamber contained oily appearing sludge. Mr. Fogarty stated that he previously observed this sludge in the chlorine contact chamber during a site visit on May 18, 2009. Photos 7-22 in Attachment 11 show the units of the east plant.

Upon returning to the USOR site, Mr. Genssler was questioned about the sludge. He stated that it was generated by USOR and shipped to MCC during a period when USOR's designated disposal facility, Seabreeze Landfill (MSW Permit No. 1539B, SWR No. H1539), was recertifying the waste profile for the material. The oily sludge is typically a nonhazardous Class 1 waste. Initially USOR accumulated the sludge in rolloff boxes at USOR, but eventually sent it to MCC. He indicated the sludge was now recertified and being taken gradually to the disposal facility. The investigator advised Mr. Genssler that MCC was not authorized to receive and store offsite generated sludge. The facility is not registered as a receiver of this material in the Industrial and Hazardous Waste Program. This is addressed below in the section entitled Outstanding Alleged Violation. A copy of any manifests associated with transporting the sludge from USOR to MCC were requested, but were never provided.

On August 11, 2009, the investigator contacted Seabreeze Landfill to verify the date of the waste profile recertification and establish the timeframe that sludge shipments were discontinued. Ms. Rose Bainum, Special Waste Coordinator, informed the investigator that the last shipment of sludge received by the landfill was on November 25, 2008. Shipments never resumed after that because USOR declined to submit analytical data for the sludge and, consequently, the waste profile was not reapproved. On August 13, 2009, Ms. Bainum provided a copy of the manifest associated with the last shipment of sludge received from USOR on November 25, 2008. The manifest and a copy of the last waste profile are included in Attachment 12.

Investigation on June 12, 2009

The investigator arrived at USOR at 9:15 AM to review and obtain records previously requested pertaining to USOR and MCC operations. The facility was represented by Mr. Genssler. None of the MCC records were available at this time.

Mr. Genssler did provide a copy of an undated email (Attachment 13) that he stated was sent to the

MCC RECYCLING - PASADENA

6/3/2009 to 6/12/2009 Inv. # - 760182

Page 5 of 9

investigator after USOR's receipt of the June 7, 2009 Exit Interview Form pertaining to alleged violations of USOR. He stated that he had not received the Exit Interview Form pertaining to alleged violations of MCC. However, Item No. 5 on the email stated that USOR sent oily water and oily solids for further processing at MCC, which he considers a permitted activity at MCC based on its used oil registration allowing storage and processing. A copy of the Exit Interview Form for MCC was provided to Mr. Genssler during the meeting, which he signed (Attachment 4), and discussed, as follows:

Alleged Violation No. 1 - Unauthorized release of industrial wastewater to the ground and Vince Bayou on May 28, 2009. Mr. Genssler offered no disagreement. This violation is addressed in Mr. Fogarty's MCC report (Investigation No. 748898).

Alleged Violation No. 2 - (a) Storing industrial wastewater and sludge received from USOR without authorization, and (b) Processing industrial wastewater received from USOR without authorization. Mr. Genssler disagreed and indicated that the "oily water" sent from USOR contains a recoverable amount of used oil. Therefore, he claimed, it can be stored and processed at MCC under MCC's used oil processor Registration No. A85958. When told about the secondary containment requirement for used oil storage/processing tanks, he contended that this requirement only applied to the primary clarifier on the west side of the MCC facility. Per Mr. Genssler, this is the first and only unit that receives the oily water. It is from this unit that the oil is recovered. The units beyond the primary clarifier he considers wastewater storage/processing vessels subsequent to the oil recovery operation. He further stated that used oil had been recovered at MCC from the first day that USOR started piping the oily water to MCC.

A review of a document entitled Process Description submitted with MCC's application for its Used Oil Processor registration (Attachment 8) indicated a different used oil processing scenario than the one described above by Mr. Genssler. It states that MCC will receive used oil and oily wastewater into one of three decant tanks on an alternating basis. Oil decanted from the three decant tanks will then be stored in a finished oil tank for subsequent sale, and water from the decant tanks will be pumped to the clarifier. There is no mention of receiving offsite generated oily sludge.

When asked how MCC stored the recovered oil since the tank for that purpose wasn't installed until approximately June 8, 2009, Mr. Genssler responded that the recovered oil went directly from the primary clarifier into a transport vehicle. The investigator requested records showing how much oil was recovered. Mr. Genssler agreed to provide this documentation as soon as he could get it together. It was not provided.

Mr. Genssler sent a letter dated June 11, 2009 to Mr. Tanveer Anjum, Manager, IHW Permits Section requesting confirmation of USOR's interpretation of rules pertaining to used oil. Specifically, Mr. Genssler asked the TCEQ to confirm the following: (1) the material sent from USOR to MCC is an oily water mixture in accordance with Texas Administrative Code, Title 30, Part I, Chapter 324, and is authorized to be delivered to a facility with a used oil registration; and (2) MCC is authorized to receive, store and process the oily water from USOR pursuant to its used oil registration. By letter dated July 16, 2009, from Ms. Diane Goss, Staff Attorney, Environmental Law Division, to Mr. Lawrence Rothenberg, Attorney, representing USOR, the TCEQ informed USOR that the IHW Permits Section declines to respond to Mr. Genssler's request because the request concerns the subject matter of a pending law suit. Both letters are included in Attachment 14.

On July 9, 2009, Mr. Genssler provided via email the "first manifest" of used oil (2,000 gallons) delivered from MCC to USOR (Attachment 15), and indicated that additional used oil would be shipped from MCC to USOR that day. On July 10, 2009, Mr. Genssler was sent an Exit Interview Form by email (Attachment 5) expressing concern that MCC called the recovered material "used oil" on the manifest (Bill of Lading No. 080709 dated July 8, 2009) instead of waste oil. He was advised that Region 12 considered this an Additional Issue and was requested to provide supporting documentation. The following records were requested: a hazardous waste determination based on

sample analytical data, information on the sources of the oil including the types of facilities that generated the oil and how it was described on manifests/trip tickets when it was initially delivered to USOR, copies of manifests/trip tickets as examples, and information on what was done with the material sent from MCC to USOR. This is addressed below in the section entitled Outstanding Additional Issue.

Mr. Genssler responded by email on July 13, 2009, asking for clarification of the concern with his "used oil" designation (Attachment 16). A proposed response was prepared that was reviewed internally and forwarded by the TCEQ Litigation Division on July 27, 2009 to Mr. David Green, Assistant Attorney General, for possible communication to USOR. The proposed response is not included as an attachment because it is considered a confidential attorney client communication.

Information considered supplemental to what was provided in the July 13, 2009 email, is based on review of a process flow diagram contained in USOR's application for Permit No. 52123 [Process Flow Diagram for Industrial Class I and II & BOD Reduction, Revision 2, dated March 20, 2007 (Attachment 17)]. This diagram shows that used oil and wastewater contaminated with used oil are processed in a separate (non-permitted) system from Class I, II, and hazardous wastes, which are processed in permitted units. After used oil is recovered, the resulting wastewater combines with wastewater in the permitted units, specifically Bio-Reactor C-64, Bio-Reactor C-63, Bio-Reactor C-65 (yet to be built), Bio-Reactor C-66 (yet to be built), and Clarifier C-67 (yet to be built). The diagram indicates that clarified water is then discharged to the POTW. These permitted units are industrial waste management units authorized to manage nonhazardous waste. The units are listed on USOR's NOR (Attachment 18) as required by the permit, which incorporates 30 TAC Chapter 335, Subchapter A pertaining to industrial and hazardous waste management. The units are not maintained as used oil units, and are regulated under 30 TAC 335.

Regarding the USOR sludge stored at MCC, Mr. Genssler stated that regulation 30 TAC 335.2(d)(1) allows USOR to ship the sludge to a facility within 50 miles so long as the property is owned by the same person or entity. The investigator advised him this regulation applies only to noncommercial facilities. No documentation was provided to prove that the USOR and MCC sites are owned by the same person or entity. As a commercial facility, USOR must send its Class 1 waste to a facility with TCEQ authorization to receive this classification of waste.

BACKGROUND

MCC had not previously been investigated by the TCEQ Waste Section. The Agency compliance database showed no outstanding violations for industrial and hazardous waste, or municipal solid waste issues.

ADDITIONAL INFORMATION

During the investigation, certain letters and emails were obtained that indicated USOR ceased discharging process wastewater to the City on February 28, 2009, and began sending it to MCC on or about March 1, 2009 (Attachment 19). A May 20, 2009 email from USOR's Mr. James Wise stated that USOR ceased discharging industrial wastewater to the City of Pasadena POTW on February 28, 2009, and that discharging to the POTW would resume on May 21, 2009. However, discharging to the POTW did not resume until approximately June 12, 2009 based on verbal communication from Mr. Genssler during the meeting on June 12, 2009. Whether this discharge consisted of wastewater processed at MCC, or of wastewater discharged directly from USOR routed through USOR's new discharge point at 200 N. Richey St., or both was not clear. An email dated March 1, 2009, from Mr. Genssler to Mr. Green stated that USOR completed the tie-in between the 400 N. Richey facility and the west side of the Old Vince Bayou plant on Saturday (February 28, 2009), and that USOR would not be discharging any water to the City until further notice. Additionally, a letter dated April 23, 2009, from Mr. Daya Dayananda, City Assistant Director of Public Works, to Mr. Genssler indicated that USOR had not discharged their flow to the

MCC RECYCLING - PASADENA

6/3/2009 to 6/12/2009 Inv. # - 760182

Page 7 of 9

City's Vince Bayou WWTP since March 1, 2009.

On June 8, 2009, a temporary injunction order was issued to the above-referenced Defendants by the District Court of Harris County, Texas, 125th Judicial District (Attachment 3). Among other things, it ordered the Defendants to (1) immediately cease unauthorized discharges from 200 N. Richey Road, (2) immediately notify Harris County Environmental Public Health and the State if there are any unauthorized discharges or spills from 200 North Richey Road, (3) immediately stop all intake to 200 North Richey Road until certain specified conditions are met, (4) a qualified wastewater operator must be on site at all times, (5) install an audible high level alarm on sumps and lift stations at the site at 200 North Richey Road, (6) any wastewater or oily wastewater or used oil that is removed from the site must be removed to a facility authorized to receive it by the TCEQ, and (7) remove within 60 days all contents from the chlorine contact chamber at 200 North Richey Road and dispose of it at a facility authorized by the TCEQ to receive the waste.

On August 20, 2009, it was found that MCC was accepting wastewater from USOR, and had modified their oil recovery operation from that described by Mr. Genssler on June 12, 2009. This was reported to the investigator by Mr. Charles Burner, Environmental Investigator of the Region 12 Waste Section, who accompanied Mr. Terry Vasut, Environmental Investigator of the Air Section, and Mr. Fogarty during an odor complaint investigation at MCC (Attachment 20). These individuals met with Mr. Andy Thomas, MCC Plant Manager, who went over the current plant operations. He explained that wastewater from USOR is piped through an oil/water separator located at the MCC headworks. Wastewater comes in one side of the oil-water separator, passes through the separator, and the recovered oil is stored in the oil/water separator until it is vacuumed off. Wastewater then passes on to the (primary) clarifier. The clarifier removes additional oil by skimming the oil off the surface of the water. The water is then pumped to the trickle filter, which is used as a holding tank. Water is pumped from the trickle filter to the aeration basin. Water from the aeration basin is pumped to a sump next to the clarifier where it gravity flows across the bayou to the east plant clarifier and digester, then to the City POTW. Mr. Burner did not visit the east plant. See Photos 23-25 in Attachment 11.

CONCLUSION

The industrial wastewater and sludge received by MCC is in violation of 30 TAC 335.2(n) for failure to obtain authorization prior to receiving industrial wastewater and sludge.

OUTSTANDING ALLEGED VIOLATION

The following alleged violation was documented during the Case Development Investigation conducted on June 3 and 12, 2009:

30 Texas Administrative Code (TAC) 335.2(n) - Permit Required (Category A2a)

MCC Recycling failed to obtain authorization (a) prior to storing industrial wastewater and sludge received from US Oil Recovery, and (b) prior to processing industrial wastewater received from US Oil Recovery. The facility does not have the permit required of commercial industrial solid waste facilities that receive industrial solid waste for discharge to a POTW. Additionally, MCC is not registered in the Solid Waste Program as a Receiver.

OUTSTANDING ADDITIONAL ISSUE

It is a concern that the material recovered from wastewater at MCC Recycling (MCC) is not used oil as indicated on Bill of Lading No. 080709 dated July 8, 2009, but is waste oil. The Bill of Lading showed 2,000 gallons were transported to US Oil Recovery (USOR). It is requested that MCC provide documentation in support of its claim that the recovered material was used oil. Documentation should include a hazardous waste determination based on sample analytical data, information on the sources of the material including the types of facilities that generated the material, how it was described on manifests/trip tickets when it was initially delivered to USOR

MCC RECYCLING - PASADENA

6/3/2009 to 6/12/2009 Inv. # - 760182

Page 8 of 9

including waste codes assigned by the generators, and what steps were taken by USOR to manage the deliveries as used oil. Provide copies of manifests/trip tickets as examples. Also provide information on what was done with the material sent to USOR by MCC.

NOE Date: 10/8/2009

Others

ASSOCIATED TO A NOTICE OF ENFORCEMENT

Track No: 378892

Compliance Due Date: To Be Determined

Violation Start Date: 3/1/2009

30 TAC Chapter 335.2(n)

Alleged Violation:

Investigation: 760182

Comment Date: 10/01/2009

MCC Recycling failed to obtain authorization (a) prior to storing industrial wastewater and sludge received from US Oil Recovery, and (b) prior to processing industrial wastewater received from US Oil Recovery. The facility does not have the permit required of commercial industrial solid waste facilities that receive industrial solid waste for discharge to a POTW. Additionally, MCC is not registered in the Solid Waste Program as a Receiver.

Recommended Corrective Action: To be determined.

Additional Issues

Description

Item #2

Additional Comments

It is a concern that the material recovered from wastewater at MCC Recycling (MCC) is not used oil as indicated on Bill of Lading No. 080709 dated July 8, 2009, but is waste oil. The Bill of Lading showed 2,000 gallons were transported to US Oil Recovery (USOR). It is requested that MCC provide documentation in support of its claim that the recovered material was used oil. Documentation should include a hazardous waste determination based on sample analytical data, information on the sources of the material including the types of facilities that generated the material, how it was described on manifests/trip tickets when it was initially delivered to USOR including waste codes assigned by the generators, and what steps were taken by USOR to manage the deliveries as used oil. Provide copies of manifests/trip tickets as examples. Also provide information on what was done with the material sent to USOR by MCC.

MCC RECYCLING - PASADENA

6/3/2009 to 6/12/2009 Inv. # - 760182

Page 9 of 9

Signed _____
Environmental Investigator

Date _____

Signed _____
Supervisor

Date _____

Attachments: (in order of final report submittal)

___ Enforcement Action Request (EAR)

___ Maps, Plans, Sketches

___ Letter to Facility (specify type) : _____

___ Photographs

Investigation Report

___ Correspondence from the facility

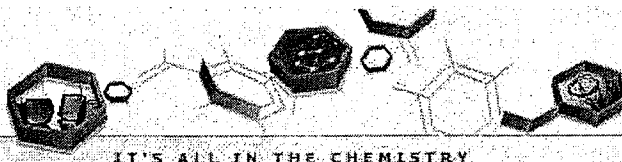
___ Sample Analysis Results

___ Other (specify) : _____

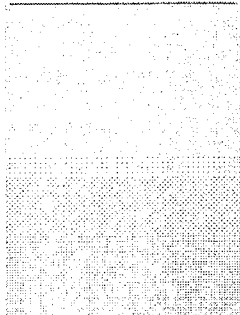
___ Manifests

___ NOR

Reference 16:
Weston Solutions. Technical Report for USOR- Analytical Assessment. Dated
August 17, 2010. 10 pages.



08/17/10



Technical Report for

Weston Solutions

US Oil Recovery/400 North Richey, Pasadena, TX

Accutest Job Number: T55622

Sampling Date: 07/05/10

Report to:

Weston Solutions

kettlerk@westonsolutions.com

ATTN: Kristie Kettler

Total number of pages in report: 45



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

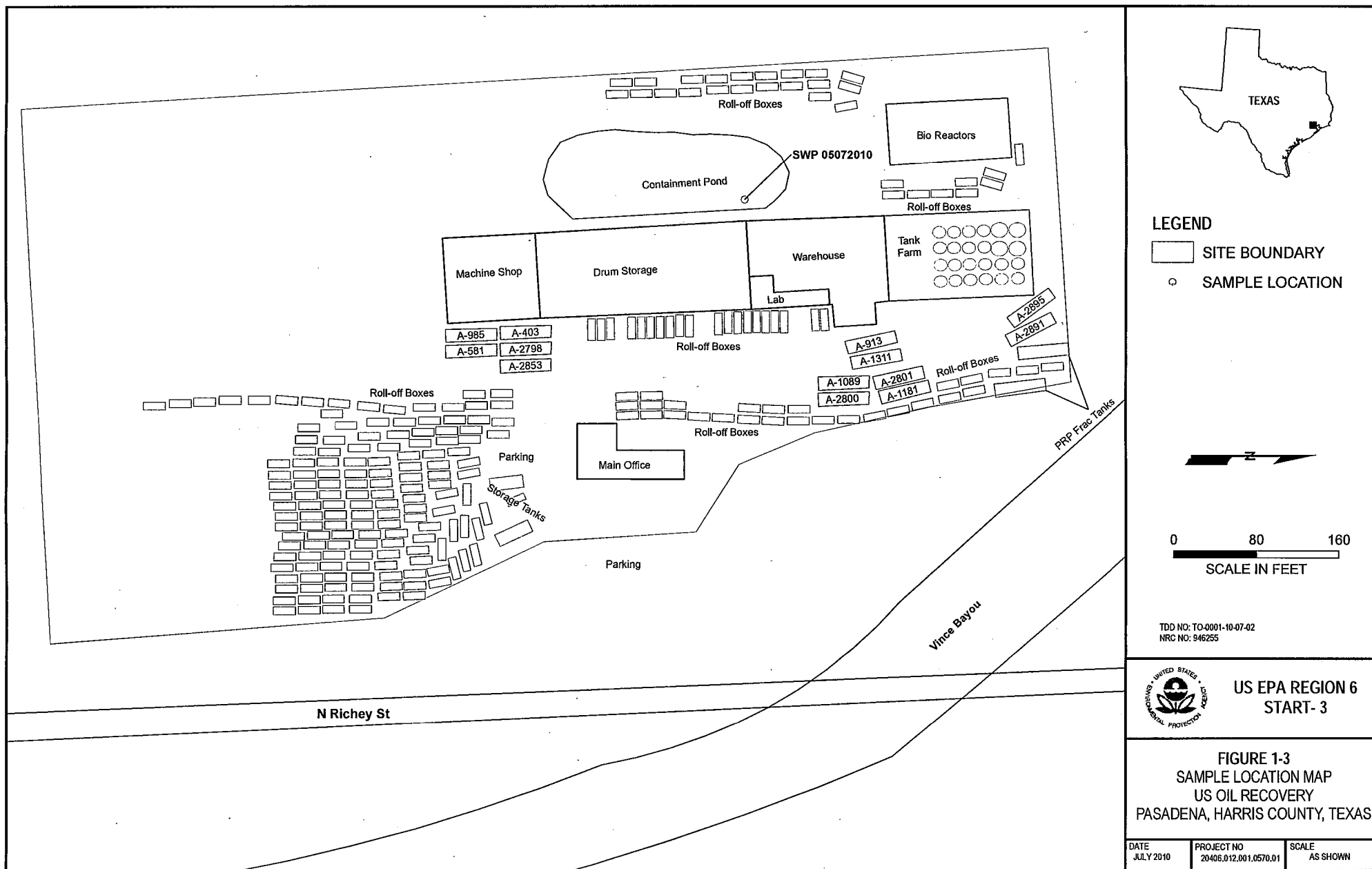
Paul K Canevaro

Paul Canevaro
Laboratory Director

Client Service contact: Sylvia Garza 713-271-4700

Certifications: TX (T104704220-09C-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004)
OK (9103) UT(7132714700)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.



File: C:\Users\bondp\Desktop\GIS\RG_1-3_SAMPLE_LOCATION_MAP.mxd, 17-Aug-10 08:20, bondp

Report of Analysis

Page 1 of 2

3.1

3

Client Sample ID: SWP-05072010

Lab Sample ID: T55622-1

Date Sampled: 07/05/10

Matrix: AQ - Surface Water

Date Received: 07/06/10

Method: SW846 8260B

Percent Solids: n/a

Project: US Oil Recovery/400 North Richey, Pasadena, TX

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0010586.D	1	07/06/10	RR	n/a	n/a	VC471
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	MQL	SDL	Units	Q
67-64-1	Acetone	8.2	50	4.7	ug/l	J
71-43-2	Benzene	0.50 U	2.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.49 U	2.0	0.49	ug/l	
75-25-2	Bromoform	1.4 U	2.0	1.4	ug/l	
108-90-7	Chlorobenzene	0.56 U	2.0	0.56	ug/l	
75-00-3	Chloroethane	0.92 U	2.0	0.92	ug/l	
67-66-3	Chloroform	0.64 U	2.0	0.64	ug/l	
75-15-0	Carbon disulfide	0.53 U	2.0	0.53	ug/l	
56-23-5	Carbon tetrachloride	0.66 U	2.0	0.66	ug/l	
75-34-3	1,1-Dichloroethane	0.52 U	2.0	0.52	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	2.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.62 U	2.0	0.62	ug/l	
78-87-5	1,2-Dichloropropane	0.62 U	2.0	0.62	ug/l	
124-48-1	Dibromochloromethane	0.61 U	2.0	0.61	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.56 U	2.0	0.56	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.48 U	2.0	0.48	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.45 U	2.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.68 U	2.0	0.68	ug/l	
100-41-4	Ethylbenzene	0.55 U	2.0	0.55	ug/l	
591-78-6	2-Hexanone	3.2 U	10	3.2	ug/l	
108-10-1	4-Methyl-2-pentanone	9.9 U	10	9.9	ug/l	
74-83-9	Methyl bromide	0.94 U	2.0	0.94	ug/l	
74-87-3	Methyl chloride	0.84 U	2.0	0.84	ug/l	
75-09-2	Methylene chloride	0.41 U	5.0	0.41	ug/l	
78-93-3	Methyl ethyl ketone	3.9 U	10	3.9	ug/l	
100-42-5	Styrene	0.56 U	2.0	0.56	ug/l	
71-55-6	1,1,1-Trichloroethane	0.62 U	2.0	0.62	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	1.2 U	2.0	1.2	ug/l	
79-00-5	1,1,2-Trichloroethane	0.98 U	2.0	0.98	ug/l	
127-18-4	Tetrachloroethylene	0.91 U	2.0	0.91	ug/l	
108-88-3	Toluene	0.43 U	2.0	0.43	ug/l	
79-01-6	Trichloroethylene	0.52 U	2.0	0.52	ug/l	

U = Not detected SDL - Sample Detection Limit

MQL = Method Quantitation Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank-

N = Indicates presumptive evidence of a compound

03

Report of Analysis

Page 2 of 2

3.1

3

Client Sample ID:	SWP-05072010	Date Sampled:	07/05/10
Lab Sample ID:	T55622-1	Date Received:	07/06/10
Matrix:	AQ - Surface Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	US Oil Recovery/400 North Richey, Pasadena, TX		

VOA TCL List

CAS No.	Compound	Result	MQL	SDL	Units	Q
75-01-4	Vinyl chloride	1.0 U	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	1.7 U	6.0	1.7	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		79-122%
17060-07-0	1,2-Dichloroethane-D4	102%		75-121%
2037-26-5	Toluene-D8	97%		87-119%
460-00-4	4-Bromofluorobenzene	83%		80-133%

U = Not detected SDL - Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

04

Report of Analysis

Page 1 of 3

3.1

3

Client Sample ID: SWP-05072010

Lab Sample ID: T55622-1

Date Sampled: 07/05/10

Matrix: AQ - Surface Water

Date Received: 07/06/10

Method: SW846 8270C SW846 3510C

Percent Solids: n/a

Project: US Oil Recovery/400 North Richey, Pasadena, TX

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W243.D	1	07/06/10	GJ	07/06/10	OP15289	EW12
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN TCL List

CAS No.	Compound	Result	MQL	SDL	Units	Q
65-85-0	Benzoic Acid	5.0 U	10	5.0	ug/l	
95-57-8	2-Chlorophenol	1.2 U	5.0	1.2	ug/l	
59-50-7	4-Chloro-3-methyl phenol	1.2 U	5.0	1.2	ug/l	
120-83-2	2,4-Dichlorophenol	2.2 U	5.0	2.2	ug/l	
105-67-9	2,4-Dimethylphenol	1.3 U	5.0	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	15 U	25	15	ug/l	
534-52-1	4,6-Dinitro-o-cresol	1.4 U	10	1.4	ug/l	
95-48-7	2-Methylphenol	0.83 U	5.0	0.83	ug/l	
	3&4-Methylphenol	1.6 U	5.0	1.6	ug/l	
88-75-5	2-Nitrophenol	2.0 U	5.0	2.0	ug/l	
100-02-7	4-Nitrophenol	6.7 U	25	6.7	ug/l	
87-86-5	Pentachlorophenol	13 U	25	13	ug/l	
108-95-2	Phenol	0.75 U	5.0	0.75	ug/l	
95-95-4	2,4,5-Trichlorophenol	1.2 U	5.0	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	1.1 U	5.0	1.1	ug/l	
83-32-9	Acenaphthene	1.6 U	5.0	1.6	ug/l	
208-96-8	Acenaphthylene	1.2 U	5.0	1.2	ug/l	
120-12-7	Anthracene	1.1 U	5.0	1.1	ug/l	
56-55-3	Benzo(a)anthracene	1.1 U	5.0	1.1	ug/l	
50-32-8	Benzo(a)pyrene	1.1 U	5.0	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	0.87 U	5.0	0.87	ug/l	
191-24-2	Benzo(g,h,i)perylene	1.7 U	5.0	1.7	ug/l	
207-08-9	Benzo(k)fluoranthene	1.1 U	5.0	1.1	ug/l	
101-55-3	4-Bromophenyl phenyl ether	1.4 U	5.0	1.4	ug/l	
85-68-7	Butyl benzyl phthalate	1.6 U	5.0	1.6	ug/l	
100-51-6	Benzyl Alcohol	1.3 U	5.0	1.3	ug/l	
91-58-7	2-Chloronaphthalene	1.4 U	5.0	1.4	ug/l	
106-47-8	4-Chloroaniline	4.3 U	5.0	4.3	ug/l	
86-74-8	Carbazole	1.5 U	5.0	1.5	ug/l	
218-01-9	Chrysene	0.98 U	5.0	0.98	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	1.3 U	5.0	1.3	ug/l	
111-44-4	bis(2-Chloroethyl)ether	1.3 U	5.0	1.3	ug/l	

U = Not detected SDL - Sample Detection Limit

MQL = Method Quantitation Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

05

Report of Analysis

Page 2 of 3

3.1

3

Client Sample ID:	SWP-05072010		
Lab Sample ID:	T55622-1	Date Sampled:	07/05/10
Matrix:	AQ - Surface Water	Date Received:	07/06/10
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	US Oil Recovery/400 North Richey, Pasadena, TX		

ABN TCL List

CAS No.	Compound	Result	MQL	SDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	2.0 U	5.0	2.0	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	1.3 U	5.0	1.3	ug/l	
95-50-1	1,2-Dichlorobenzene	1.3 U	5.0	1.3	ug/l	
541-73-1	1,3-Dichlorobenzene	1.3 U	5.0	1.3	ug/l	
106-46-7	1,4-Dichlorobenzene	1.3 U	5.0	1.3	ug/l	
121-14-2	2,4-Dinitrotoluene	1.4 U	5.0	1.4	ug/l	
606-20-2	2,6-Dinitrotoluene	1.3 U	5.0	1.3	ug/l	
91-94-1	3,3'-Dichlorobenzidine	3.2 U	10	3.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	1.6 U	5.0	1.6	ug/l	
132-64-9	Dibenzofuran	1.3 U	5.0	1.3	ug/l	
84-74-2	Di-n-butyl phthalate	1.1	5.0	1.0	ug/l	J
117-84-0	Di-n-octyl phthalate	1.3 U	5.0	1.3	ug/l	
84-66-2	Diethyl phthalate	1.1 U	5.0	1.1	ug/l	
131-11-3	Dimethyl phthalate	1.1 U	5.0	1.1	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	4.1	5.0	1.8	ug/l	J
206-44-0	Fluoranthene	0.97 U	5.0	0.97	ug/l	
86-73-7	Fluorene	1.3 U	5.0	1.3	ug/l	
118-74-1	Hexachlorobenzene	1.3 U	5.0	1.3	ug/l	
87-68-3	Hexachlorobutadiene	1.1 U	5.0	1.1	ug/l	
77-47-4	Hexachlorocyclopentadiene	5.2 U	10	5.2	ug/l	
67-72-1	Hexachloroethane	0.97 U	5.0	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	1.8 U	5.0	1.8	ug/l	
78-59-1	Isophorone	1.2 U	5.0	1.2	ug/l	
91-57-6	2-Methylnaphthalene	1.3 U	5.0	1.3	ug/l	
88-74-4	2-Nitroaniline	1.4 U	5.0	1.4	ug/l	
99-09-2	3-Nitroaniline	3.3 U	5.0	3.3	ug/l	
100-01-6	4-Nitroaniline	2.3 U	5.0	2.3	ug/l	
91-20-3	Naphthalene	1.1 U	5.0	1.1	ug/l	
98-95-3	Nitrobenzene	1.7 U	5.0	1.7	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	1.4 U	5.0	1.4	ug/l	
86-30-6	N-Nitrosodiphenylamine	1.7 U	5.0	1.7	ug/l	
85-01-8	Phenanthrene	0.97 U	5.0	0.97	ug/l	
129-00-0	Pyrene	1.7 U	5.0	1.7	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.3 U	5.0	1.3	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		10-66%
4165-62-2	Phenol-d5	31%		10-53%
118-79-6	2,4,6-Tribromophenol	83%		32-128%

U = Not detected SDL - Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

06

Report of Analysis

Page 3 of 3

3.1

3

Client Sample ID: SWP-05072010	Date Sampled: 07/05/10
Lab Sample ID: T55622-1	Date Received: 07/06/10
Matrix: AQ - Surface Water	Percent Solids: n/a
Method: SW846 8270C SW846 3510C	
Project: US Oil Recovery/400 North Richey, Pasadena, TX	

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	55%		29-115%
321-60-8	2-Fluorobiphenyl	56%		34-113%
1718-51-0	Terphenyl-d14	74%		12-145%

U = Not detected SDL - Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

07

Report of Analysis

Page 1 of 1

Client Sample ID: SWP-05072010

Lab Sample ID: T55622-1

Matrix: AQ - Surface Water

Date Sampled: 07/05/10

Date Received: 07/06/10

Percent Solids: n/a

Project: US Oil Recovery/400 North Richey, Pasadena, TX

Total Metals Analysis

Analyte	Result	MQL	SDL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	0.157 B	0.20	0.012	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Antimony	0.0010 U	0.0050	0.0010	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Arsenic	0.0123	0.0050	0.0010	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Barium	0.0509 B	0.20	0.0034	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Beryllium	0.00016 U	0.0050	0.00016	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Cadmium	0.000090 U	0.0040	0.000090	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Calcium	25.5	5.0	0.025	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Chromium	0.00047 B	0.010	0.00027	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Cobalt	0.00042 B	0.050	0.00022	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Copper	0.0059 U	0.025	0.0059	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Iron	0.0842 B	0.10	0.023	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Lead	0.0024 B	0.0030	0.0018	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Magnesium	1.41 B	5.0	0.0079	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Manganese	0.108	0.015	0.0019	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Mercury	0.000094 U	0.00020	0.000094	mg/l	1	07/06/10	07/06/10 CN	SW846 7470A ¹	SW846 7470A ⁴
Nickel	0.0428	0.040	0.0014	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Potassium	4.99 B	5.0	0.045	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Selenium	0.00098 U	0.0050	0.00098	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Silver	0.00024 U	0.010	0.00024	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Sodium	50.2	5.0	0.10	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Thallium	0.0012 U	0.010	0.0012	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Vanadium	0.0018 B	0.050	0.00030	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³
Zinc	0.0417	0.020	0.0035	mg/l	1	07/06/10	07/06/10 NS	SW846 6010B ²	SW846 3010A ³

(1) Instrument QC Batch: MA4885

(2) Instrument QC Batch: MA4886

(3) Prep QC Batch: MP12217

(4) Prep QC Batch: MP12218

MQL = Method Quantitation Limit
 SDL = Sample Detection Limit

U = Indicates a result < SDL
 B = Indicates a result > = SDL but < MQL

Report of Analysis

Page 1 of 2

3.2

3

Client Sample ID: SWP-05072010-TB

Lab Sample ID: T55622-2

Date Sampled: 07/05/10

Matrix: AQ - Trip Blank Water

Date Received: 07/06/10

Method: SW846 8260B

Percent Solids: n/a

Project: US Oil Recovery/400 North Richey, Pasadena, TX

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0010571.D	1	07/06/10	RR	n/a	n/a	VC471
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	ML	SDL	Units	Q
67-64-1	Acetone	4.7 U	50	4.7	ug/l	
71-43-2	Benzene	0.50 U	2.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.49 U	2.0	0.49	ug/l	
75-25-2	Bromoform	1.4 U	2.0	1.4	ug/l	
108-90-7	Chlorobenzene	0.56 U	2.0	0.56	ug/l	
75-00-3	Chloroethane	0.92 U	2.0	0.92	ug/l	
67-66-3	Chloroform	0.64 U	2.0	0.64	ug/l	
75-15-0	Carbon disulfide	0.53 U	2.0	0.53	ug/l	
56-23-5	Carbon tetrachloride	0.66 U	2.0	0.66	ug/l	
75-34-3	1,1-Dichloroethane	0.52 U	2.0	0.52	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	2.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.62 U	2.0	0.62	ug/l	
78-87-5	1,2-Dichloropropane	0.62 U	2.0	0.62	ug/l	
124-48-1	Dibromochloromethane	0.61 U	2.0	0.61	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.56 U	2.0	0.56	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.48 U	2.0	0.48	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.45 U	2.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.68 U	2.0	0.68	ug/l	
100-41-4	Ethylbenzene	0.55 U	2.0	0.55	ug/l	
591-78-6	2-Hexanone	3.2 U	10	3.2	ug/l	
108-10-1	4-Methyl-2-pentanone	9.9 U	10	9.9	ug/l	
74-83-9	Methyl bromide	0.94 U	2.0	0.94	ug/l	
74-87-3	Methyl chloride	0.84 U	2.0	0.84	ug/l	
75-09-2	Methylene chloride	0.41 U	5.0	0.41	ug/l	
78-93-3	Methyl ethyl ketone	3.9 U	10	3.9	ug/l	
100-42-5	Styrene	0.56 U	2.0	0.56	ug/l	
71-55-6	1,1,1-Trichloroethane	0.62 U	2.0	0.62	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	1.2 U	2.0	1.2	ug/l	
79-00-5	1,1,2-Trichloroethane	0.98 U	2.0	0.98	ug/l	
127-18-4	Tetrachloroethylene	0.91 U	2.0	0.91	ug/l	
108-88-3	Toluene	0.43 U	2.0	0.43	ug/l	
79-01-6	Trichloroethylene	0.52 U	2.0	0.52	ug/l	

U = Not detected

SDL - Sample Detection Limit

ML = Method Quantitation Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

09

Report of Analysis

Page 2 of 2

Client Sample ID:	SWP-05072010-TB	Date Sampled:	07/05/10
Lab Sample ID:	T55622-2	Date Received:	07/06/10
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	US Oil Recovery/400 North Richey, Pasadena, TX		

VOA TCL List

CAS No.	Compound	Result	MQL	SDL	Units	Q
75-01-4	Vinyl chloride	1.0 U	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	1.7 U	6.0	1.7	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		79-122%
17060-07-0	1,2-Dichloroethane-D4	101%		75-121%
2037-26-5	Toluene-D8	97%		87-119%
460-00-4	4-Bromofluorobenzene	88%		80-133%

U = Not detected SDL - Sample Detection Limit
MQL = Method Quantitation Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Reference 17:

Texas Commission on Environmental Quality. Notice of Enforcement for Sampling Investigation at US Oil Recovery. Dated February 28, 2008 and written by Nicole M. Bealle, P.G. 3 pages.

Buddy Garcia, *Chairman*
Larry R. Soward, *Commissioner*
Bryan W. Shaw, Ph.D., *Commissioner*
Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

February 28, 2008

CERTIFIED MAIL 7002 2030 0003 4755 3803
RETURN RECEIPT REQUESTED

CT Corporation System, Registered Agent
U.S. Oil Recovery, L.P.
350 N. St. Paul Street
Dallas, Texas 75201

Re: Notice of Enforcement for Sampling Investigation at:
US Oil Recovery, 400 N. Richey Street, Pasadena (Harris County), Texas 77506
TCEQ SWR ID No.: 52123, Used Oil Registration No.: A85794, EPA ID No.: TXR000051540

Dear Sirs:

On December 17, 2007, Mr. Edgar E. St. James, Jr. of the Texas Commission on Environmental Quality (TCEQ) Houston Region Office conducted a Sampling Investigation of the above-referenced regulated entity to evaluate compliance with applicable requirements for industrial solid waste. During this investigation, an outstanding alleged violation was documented. Enclosed is a summary which lists the investigation findings.

In the listing of the alleged violation, the applicable requirements have been cited, including TCEQ rules. If you would like to obtain a copy of the applicable TCEQ rules, you may contact any of the sources listed in the enclosed brochure entitled "Obtaining TCEQ Rules."

Also, please be advised that the Legislature has granted enforcement powers to the TCEQ to carry out its mission to protect human health and the environment. Due to the apparent seriousness of the alleged violation, formal enforcement action has been initiated, and additional violations may be cited upon further review. We encourage you to immediately begin taking actions to address the outstanding alleged violations.

In responding with prompt corrective action, the administrative penalty to be assessed may be limited.

The Commission recognizes that the great majority of the regulated community wants to prevent pollution and to comply with environmental laws. We dedicate considerable resources toward making voluntary compliance achievable. But where compliance has not been met it is our duty to protect the public and the environment by enforcing the state's environmental laws, regulations, and permits.

Also, if you believe the violation documented in this notice has been cited in error, and you have additional information that we are unaware of, you may request an enforcement review meeting (ERM). However, in order to qualify for an ERM, you must have new information that was not evaluated by the referring investigator. To request an ERM, submit a letter with all supporting documentation within 14 days from the date of this letter to address below or via fax at (512) 239-0134.

REPLY TO: REGION 12 • 5425 POLK ST., STE. H • HOUSTON, TEXAS 77023-1452 • 713-767-3500 • FAX 713-767-3520

P.O. Box 13087 • Austin, Texas 78711-3087 • 512-239-1000 • Internet address: www.tceq.state.tx.us

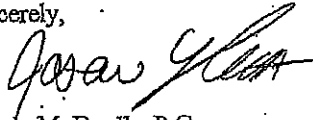
printed on recycled paper using soy-based ink

February 28, 2008

ERM Coordinator
Enforcement Division, MC 219
Re: Enforcement Review Meeting Request
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

If you or members of your staff have any questions regarding matters other than ERM, please feel free to contact Mr. St. James in the Houston Region Office at 713-767-3638. If you have questions about an ERM, please contact the ERM Coordinator at 512-239-2545.

Sincerely,



for Nicole M. Bealle, P.G.
Manager, Waste Section
Houston Region Office

NMB/EES/na

Enclosure(s): Summary of Investigation Findings
Obtaining TCEQ Rules

cc: Ms. Ceil Price, Sr. Assistant City Attorney, 900 Bagby St., Houston, TX 77002
Mr. Walid Samarnah, Planning and Development, City of Houston Public Works Department,
611 Walker, 18th Floor, Houston, Texas 77002

SUMMARY OF INVESTIGATION FINDINGS

US Oil Recovery
400 N. Richey Street
Pasadena (Harris County), Texas 77506
TCEQ SWR ID No.: 52123, EPA ID No.: TXR000051540
DHW Nonhazardous Waste Permit No.: 52123
Sampling Investigation
Investigation Date: December 17, 2007

OUTSTANDING ALLEGED VIOLATION

The following violation was documented during the investigation conducted on December 17, 2007:

30 Texas Administrative Code 335.4(1) / Texas Water Code 26.121(a)(1) - Unauthorized Discharges Prohibited

U.S. Oil Recovery failed to prevent the unauthorized discharge of wastewater from the aeration basin (Bio-Reactors C-63 and C-64, NOR 022 and 023). Cracks were observed in the west wall of the basin discharging wastewater. Two soil samples collected approximately three feet from the base of the unit, one soil sample collected approximately 58 feet away at the north fence line, and two soil samples collected on adjacent down-gradient property to the north found contamination by petroleum hydrocarbons at levels requiring remediation. Each of the above five soil samples, as well as a sixth sample located approximately 88 feet north of USOR property encountered concentrations of arsenic, lead, and/or mercury exceeding Texas Risk Reduction Program (TRRP) Tier 1 residential protective concentration levels (PCLs).

Reference 18:

Texas Commission on Environmental Quality. Field Notes for U.S. Oil Recovery LLC. EPA Emergency Response. Notes dated November 9, 2010 through December 20, 2010. Written by Olga Salinas, Project Manager, 96 pages.

US OIL RECOVERY (USOR)
EMERGENCY RESPONSE - INCIDENT #2
400 N. RICHEY STREET
PASADENA, TX

National Brand CHEMISTRY NOTEBOOKS

Item No.	Numbered Pages	Ruling	Size
Item No. 43-571	120	Record	9 1/2" x 7 1/2"
Item No. 43-581	120	Record	11" x 8 1/2"

Product Guarantee

Rediform is committed to providing you with quality products, and will gladly replace any product which does not provide complete satisfaction. We also welcome your comments and suggestions. Please send your correspondence with product code to:

Rediform Inc.
555 Airline Drive • Coppell, TX 75019

Made in Mexico



RECYCLED CONTENT

Paper Contains a minimum of 30% post-consumer fiber.



ACID-FREE PAPER

Paper does not yellow or deteriorate over time.

NOTES WRITTEN BY OLGA SALINAS

DATE: NOV 9, 2010

10:32 AM - ARRIVED AT USOR SITE.

PERSONNEL ON SITE:

ADAM ADAMS (EPA)
STEPHANIE LIVINGHOUSE (SHAW)
DEBBIE COBB (HUGSTON)

- ADDITIONAL PERSONNEL FROM EAGLE SIS
(1 FOREMAN, 2 LABS AND 1 VAC OPERATOR)

EAGLE SIS ARE THE CONTRACTORS USED TO REMOVE THE CONTAMINATED RAINWATER IN THE TANK FARM AND BAY 36 AND DISPOSE OF TO ENBLUE (DISPOSAL FACILITY USED THE LAST TIME WHEN EPA HAD AN EMERGENCY RESPONSE AT USOR IN THE END OF JULY).

WHEN I ARRIVED AT THE SITE, I SAW SMALL OIL.

10:40 - TALKED TO ADAM AND HE TOLD ME HIS ACTIONS FOR CLEAN UP.

EPA'S ACTIONS FOR CLEAN UP

- TANK FARM AREA ^{AND} (Contaminated secondary containment area) and BAY AREA 36 WILL BE VACUUMED AND SENT TO DISPOSAL FACILITY (ENBLUE) - PRIORITY!

- RAINWATER IN THE PARKING LOT WILL BE VACUUMED AND TRANSFERRED TO THE STORMWATER POND (WEST OF THE WARE HOUSE), THIS IS JUST TEMPORARY.

11/9/10
[Signature]

NOV 9, 2010 NOTES WRITTEN BY DIGA SALINAS

- CLEAN UP PERSONNEL WILL CONTINUE TO VACUUM THE RAINWATER FROM THE TANK FARM AND BAY AREA 36 UNTIL 11 PM.
- ON NOV 10, 2010 CLEAN UP PERSONNEL STAFF WILL WORK 24 HRS (DAY & NIGHT SHIFTS) TO COMPLETE THE CLEAN UP. HOUSTON IS EXPECTING RAIN FOR A FEW DAYS THIS WEEK, THEREFORE CLEAN UP PERSONNEL IS TRYING TO DISPOSE OF THE RAINWATER IN THE TANK FARM AND BAY AREA SO THAT THE RAINWATER/OIL MIXTURE DOES NOT OVERFLOW AND RUN-OFF^{SS} OFF THE SITE AND INTO VINCE BAYOU.

10:30 - FIRST VACUUM TANK TRUCK (5,000 GALLON TRUCK) STARTED TO PUMP RAINWATER/OIL MIXTURE FROM THE 14TH TANK FARM SECONDARY CONTAINMENT AREA.

JUAN FROM EAGLE S&S STATED THAT THE PH OF THE TANK FARM SECONDARY CONTAINMENT AREA IS READING AT 7. BAY AREA 36 PH IS READING AT 2.

TOOK LUNCH AT NOON - 1ST TANK TRUCK STILL AT USEX LOADING THE RAINWATER FROM THE TANK FARM.

10:54 AM - PHOTO 1: TAKEN FACING NORTHEAST OF THE SITE. ROLL-OFF BOXES ARE LOCATED TOWARDS THE NORTH EAST SIDE OF THE PROPERTY FENCE. RAINWATER STILL REMAINS IN THE PARKING LOT AREA.

10:54 AM - PHOTO 2: PHOTO TAKEN FACING EAST TOWARDS THE OFFICE BUILDINGS.

[Signature]

11/9/10
 [Signature]

NOV 9, 2010 NOTES WRITTEN BY CISA SPRINGS

10:56 - PHOTO 3: TAKEN FACING NORTH TOWARDS NORTH END OF THE PROPERTY. PHOTO SHOWS TANK TRUCK #1 (WHICH ARRIVED AT THE SITE AT 10:30 AM) PUMPING RAINWATER/OIL MIXTURE FROM THE NORTH TANK SECOND CONTAINMENT AREA.

10:56 - PHOTO 4: TAKEN FACING WEST TOWARDS ONE OF THE BAY AREAS. PHOTO SHOWS OIL/WATER MIXTURE IN THE BAY AREA.

10:57 - PHOTO 5: TAKEN FACING WEST TOWARDS ANOTHER BAY AREA. PHOTO SHOWS OIL/WATER MIXTURE IN BAY AREA.

10:59 - PHOTO 6: TAKEN FACING WEST TOWARDS BAY AREA 316. THIS IS THE AREA WHERE OIL/WATER IS BEING VACUUMED INTO TANK TRUCKS WITH THE RAINWATER/OIL MIXTURE FROM THE NORTH TANK FARM SECONDARY CONTAINMENT AREA.

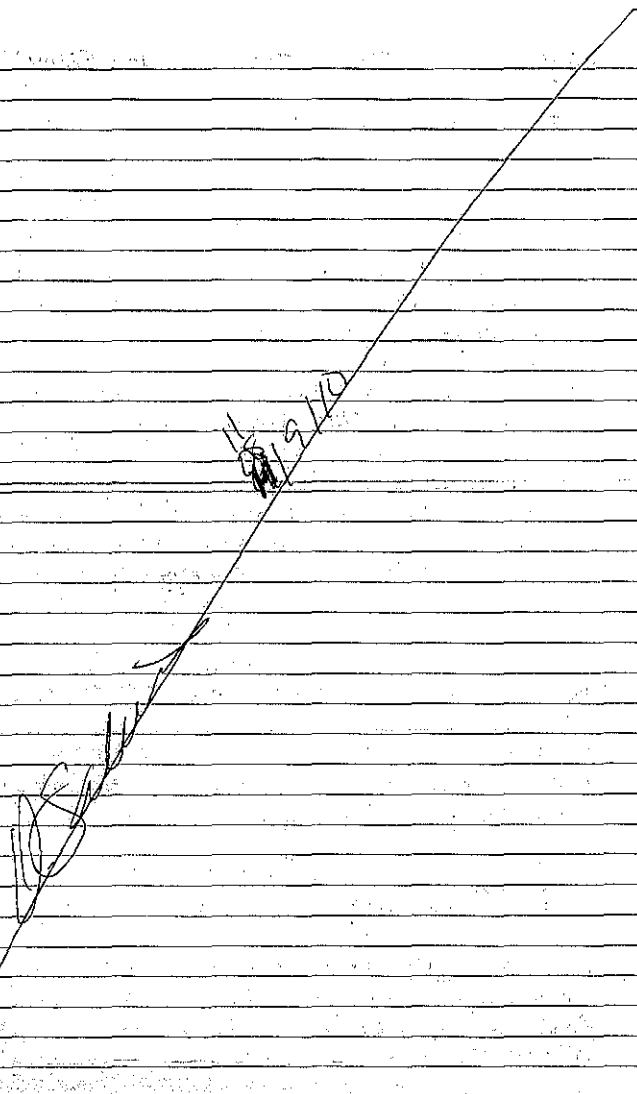
10:59 - PHOTO 7: TAKEN FACING SOUTH AT THE ROLL-OFF BOXES WITH RAINWATER STILL REMAINING IN THE PARKING LOT.

11:02 - PHOTO 8: TAKEN FACING EAST TOWARD THE OFFICE BUILDING. PHOTO SHOWS HOW HIGH THE WATER LEVEL IS TO THE CURB CURVE (A FEW INCHES).

11:03 - PHOTO 9: TAKEN FACING EAST TOWARDS THE DRIVEWAY TO ENTER THE FACILITY.

11:30 - PHOTO 10: TAKEN FACING NORTH TOWARDS THE WEST SIDE OF THE OFFICE BUILDING. PHOTO SHOWS RAINWATER NOT RUNNING OFF TO THE DRIVEWAY OF THE FACILITY.

[Signature]



NOV 9, 2000 NOTES WRITTEN BY DICA SALINAS

- TAKE LUNCH AT 12:00, 1ST TANK TRUCK STILL ON SITE LOADING THE RAINWATER/OILY WATER FROM THE TANK FARM.

12:40 pm - 1ST TANK TRUCK LEFT THE SITE TO DISPOSE THE RAINWATER/OILY WATER MIXTURE TO THE DISPOSAL FACILITY

TANK TRUCK #1

4,000 gallons - FROM NORTH TANK FARM SECONDARY CONTAINMENT
1,000 gallons - FROM BAY AREA 36

pH TAKEN AND READ AT 4.5.

1:35 pm - 2ND TANK TRUCK ARRIVED AT SITE.

TANK TRUCK #2

4,000 gallons - FROM TANK FARM SECONDARY CONTAINMENT
1,000 gallons - FROM BAY AREA 36
pH = 5

TANK TRUCK #2 LEFT SITE AT 2:50 pm

JOAN (FOREMAN - EAGLE STS) SAID THAT THE FIRST TRUCK HAD NO H₂S, AND IS STILL WAITING TO UNLOAD.

3:00 - 3:35 pm TALKED ABOUT HOW TO HANDLE THE DRUMS IN THE WAREHOUSE. DRUMS WHICH WERE STACKED ON TOP OF EACH OTHER; THE BOTTOM DRUMS ARE COLLAPSING AND LEAKING. BEAN STARTING ABOUT HOW TO CLEAN UP THE SITE.

- 3:40 I LEFT THE FACILITY

[Signature]

11/9/10
D. Salinas

11/9, 2010 NOTES WRITTEN BY DORA SALINAS
1:49 - PHOTO 11: PHOTO TAKEN FACING NORTH TOWARDS
NORTH SIDE OF THE FACILITY. SECOND TRUCK LOADING
RAINWATER / OILY WATER FROM NORTH TANK FARM
SECONDARY CONTAINMENT.

2:07 - PHOTO 12: SHOWS HOSE FROM THE BOTTOM OF
THE PHOTO PUMPING FROM THE NORTH SIDE OF THE
TANK FARM SECONDARY CONTAINMENT.

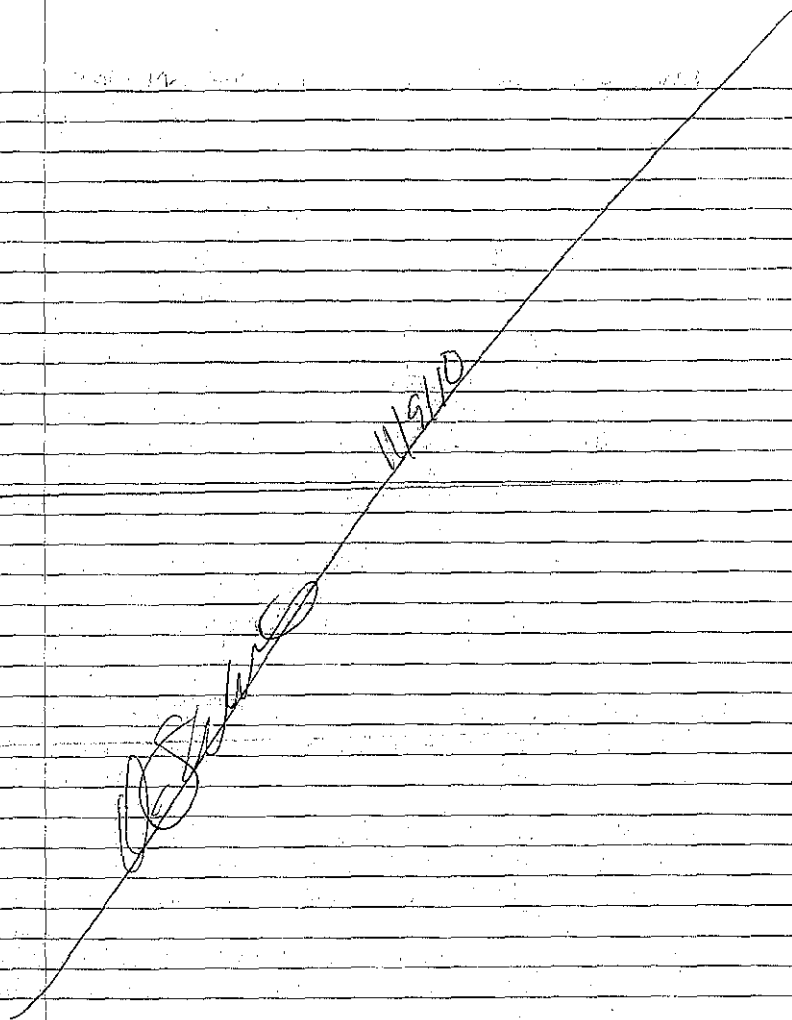
2:07 - PHOTO 13: SHOWS HOW HIGH THE RAINWATER /
OILY WATER IS TO THE TANK FARM CONTAINMENT AREA.
AFTER THE FIRST TANK TRUCK LEFT THE SITE AND
SECOND TRUCK VACUUMING OILY MIXTURE FROM THIS
AREA.

2:08 - PHOTO 14: PHOTO TAKEN FACING WEST, LOOKING
AT THE ABOVE STORAGE TANKS (AST'S). PHOTO SHOWS
THE LEVEL OF THE OILY WATER FROM THE CONTAINMENT
AREA AND TANKS.

2:11 - PHOTO 15: TAKEN OF AN AREA SOUTH OF THE
NORTH TANK FARM. GREENISH LIQUID IS THE CONTAINMENT
AREA (95% FULL).

2:11 - PHOTO 16: ~~SHOTS~~ TAKEN FACING NORTHWEST
TOWARDS THE NORTH TANK FARM. PHOTO SHOWS
OILY WATER HAS FILLED 95% OF THE CONTAINMENT AREA.

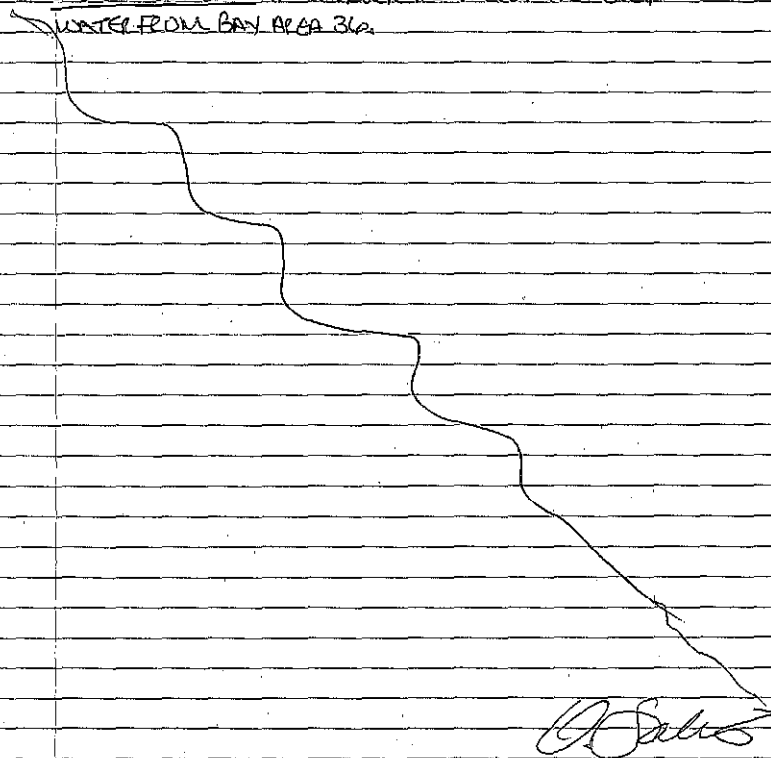
2:17 PHOTO 17: TAKEN OF THE PIPES AND VALVES OF
THE AST'S WHERE OIL IS ON THE PIPES & VALVES.



NOV 9, 2010 - NOTES WRITTEN BY OCEA SALINAS
 2:22 - PHOTO 18: TAKEN FACING WEST TOWARDS THE
 LOADING TRUCK BAY.

2:27 PHOTO 19: TAKEN FACING WEST TOWARDS BAY
 AREA 36. TANK TRUCK #2 VACUUMING 11000 GALLONS OF
 OILY WATER FROM BAY AREA 36.

2:28 PHOTO 20: TANK TRUCK #2 VACUUMING OILY
 WATER FROM BAY AREA 36.



O. Salinas
11/9/10

DATE: NOV 10, 2010 - NOTES TAKEN BY O. SALINAS

7:00 AM - ARRIVED AT SITE WEATHER PARTLY CLOUDY
APPROX 16 SE, WINDY, COMING FROM NORTHWEST.

PERSONNEL ON SITE:

ADAM ADAMS (EPA)
STEPHANIE LAVINGHOUSE (SHAW)
VIVIANO GONZALES (EAGLE SHS)
BILL FRETZ (EAGLE SHS)

7:10 - SAFETY MEETING

STEPHANIE SAID, THEY HAD 5 TANK TRUCKS (5,000 GALLONS EACH) HAUL OUT DILLY WATER FROM THE TANK FARM AND BAY AREA 316. A TOTAL OF 25,000 GALLONS. DURING THE SAFETY MEETING STEPHANIE SAID THERE ARE A FEW DRUMS IN THE WAREHOUSE WHICH ARE LEAKING CAUSTIC AND FLAMMABLE LIQUIDS. THIS ISSUE NEEDS TO BE ADDRESSED, SINCE THIS IS A SAFETY HAZARD.

7:40 AM - FIRST TANK TRUCK ARRIVED ON SITE YESTERDAY WHEN THE TRUCKS ARRIVED AT THE DISPOSAL FACILITY THE PH WAS LESS THAN 2. WE WERE THINKING MAYBE THE MIXTURE WAS MIXING MORE WHEN DRIVING TO THE DISPOSAL FACILITY WHICH CHANGED THE PH, OR IT COULD HAVE BEEN THE PH PROBE, SINCE ITS HARD TO READ WITH THE OIL.

TODAY WE ARE GOING TO COLLECT 4,500 GALLONS FROM THE TANK FARM AND 500 FROM BAY AREA 316. WE MAY USE THE CAUSTIC ON SITE TO RAISE THE PH. AND WE WILL USE A PH METER TO READ A CORRECT PH READING.

11/10/10
 O. Salinas

NOV 10, 2010 NOTES WRITTEN BY OIGG SALINAS

8:58 AM - 1ST TANK TRUCK LEAVES USR TO THE DISPOSAL FACILITY. PH=5

9:00 AM - ADAM, STEPHANE, DEREK AND I WENT TO THE BAY AREAS NEXT TO THE TANK FARM. WE WERE DISCUSSING WHAT WE ARE GOING TO DO WITH THE SLUDGE IN THE BAY AREAS. ONE OPTION WAS DISCUSS TO JUST RELOCATE THE SLUDGE IN A DIFFERENT AREA WHERE THE SLUDGE WILL NOT BE DISTURBED. ANOTHER OPTION WAS JUST TO STORE THE SLUDGE INTO ROLL-OFF BOXES, GET THEM ANALYZED, AND DISPOSE THE SLUDGE TO A DISPOSAL FACILITY. MOST OF US AGREED TO COLLECT THE SLUDGE FROM THE BAY AREAS AND STORE THEM IN ROLL-OFF BOXES, GET SAMPLES ANALYZED AND DISPOSE OF THE SLUDGE, THAT WAY THERE WILL NOT BE AN RE-ACCURANCE OF AN EMERGENCY CLEAN UP.

9:20 AM - ADAM, STEPHANE, DEREK AND I WALKED ON THE CATWALK AT THE NORTH TANK FARM SECONDARY CONTAINMENT AREA. WE CHECKED THE LIQUID LEVELS OF THE TANKS IN THE NORTH TANK FARM. THE ABOVE STORAGE TANKS (ASTS) (16000 TO 17000 GALLONS EACH) ARE BETWEEN 90% TO 100% FULL OF OIL/SOLIDS. ADAM WANTS TO EMPTY THE LIQUIDS OUT OF THE TANKS. FIRST TASK IS TO PREFORM IS TAKE PH READINGS OF THE CONTENTS OF THE TANKS, THEN HAVE TANK SAMPLES ANALYZED BY LAB, THEN VACUUM LIQUIDS FROM THE TANKS.

O. Salinas

11/10/10

O. S. J.

NDJ 10, 2010 NOTES WRITTEN BY OLGA SAUNAS

10:22 AM - SECOND TRUCK ARRIVED11:37 AM - THIRD TRUCK ARRIVED11:40 AM - STARTED RAINING12:05 PM - STOPPED RAINING. SECOND TRUCK LEFT BECAUSE PUMP WAS NOT WORKING. THIRD TRUCK STARTED VACUUMING FROM TANK FARM.12:25 PM - TOOK LUNCH.12:55 PM - RETURNED BACK FROM LUNCH.

- SECOND TRUCK VACUUMING RAINWATER FROM THE PARKING LOT. PH WAS TOO LOW THEY HAD TO EMPTY OUT THE TRUCK AND ADD MORE RAINWATER FROM THE PARKING LOT.

1:15 - FINISHED PUMPING PH=51:30 - SECOND TRUCK LEFT SITE4500 NORTH CONTAINMENT AREA
500 gallons (back from last night)

THIRD TANK TRUCK HAD 4500 gallons from Tank Farm AND 500 FROM BAY 34. PH WAS TOO LOW, SO 2500 GALLONS WAS DUMPED TO BAY 34 AND 2500 GALLONS WAS COLLECTED FROM THE PARKING LOT.

3:09 PM - THIRD TRUCK LEFT THE SITE

WE JUST HAVE TO WAIT UNTIL ANOTHER TANK TRUCK ARRIVES AT THE SITE. THIS OPERATION WILL CONTINUE UNTIL TOMORROW (WIND STOP) 24 HRS OPERATION - O. S. J.

11/10/10

D. Salas

NOVEMBER 11, 2010 (THURS) NOTES WRITTEN BY D. Salas

8:16 AM - CALLED ADAM ON UPDATE ON USR. ADAM SAID THAT THEY EMPTIED OUT ALL OF THE CONTAINERS (ONLY LIQUID) FROM THE NORTH AND SOUTH TANK FARM CONTAINMENT AREA AND FROM THE PARKING LOT AREA. A TOTAL OF 40,000 GALLONS OF OILY LIQUID ^{WAS} ~~FROM~~ THE NORTH AND SOUTH TANK FARM CONTAINMENT AREA AND THE PARKING LOT WERE REMOVED AND DISPOSED TO ENBLUE (DISPOSAL FACILITY). THEY STILL HAVE OILY LIQUID IN THE BAY 36 AREA, AND THEY ARE GOING TO NETTALIZE THE BAY 36 AREA SINCE ITS PH IS 2 AND CONSIDERED A HAZARDOUS WASTE.

D. Salas

NOVEMBER 12, 2010 (FRIDAY)

10:00 AM - ARRIVED ON SITE.

WENT INTO THE OFFICE BUILDING AND TALKED TO STEPHANIE. STEPHANIE AND REBECCA (WESTON) WERE IN THE OFFICE BUILDING. STEPHANIE SAID ADAM IS NOT IN YET, BUT WILL BE IN SHORTLY. CURRENTLY EAGLE S&S IS REMOVING OILY SLUDGE WATER FROM TANK (B-21) IN THE NORTH TANK FARM CONTAINMENT AREA SINCE IT WAS FOUND THAT TANK B-21 IS LEAKING.

10:20 AM - SECOND TANK TRUCK LEFT THE SITE. pH = 7.2. SECOND TANK TRUCK CONTAINS OILY LIQUID FROM TANK B-21 AND BAY 36.

- STEPHANIE SAID THEY HAD 50,000 GALLONS OF OILY WASTE DISPOSED YESTERDAY FROM THE PARKING LOT, TANK FARM (NORTH & SOUTH) AND BAY 36. IT RAINED A LOT YESTERDAY THAT THEY HAD TO PUMP THE OILY WATER FROM BAY 36 TO THE NORTH & SOUTH TANK FARM CONTAINMENT AREA, BECAUSE THE RAIN WAS OVERFLOWING BAY AREA 36.

D. Salas

11/12/10

11/12/10

NOVEMBER 12, 2010 (FRI) NOTES WRITTEN BY OLGA SALINAS

-DELEK, REBECCA AND I WALKED ON SITE TO OBSERVE BAY AREA 36. DELEK SAID THAT A TOTE STORING CAUSTIC WAS LEAKING YESTERDAY AND THEY USED THE CAUSTIC IN THE TOTE TO NEUTRALIZE BAY AREA 36. CURRENTLY BAY AREA 36 ONLY LIQUID HAS A PH OF 4, BUT WANT TO INCREASE THE PH A LITTLE MORE, JUST TO MAKE SURE THE OIL LIQUID DOES NOT GET BELOW A PH READING OF 2. THEY ARE USING A PUMP TO AGITATE THE CAUSTIC AND OIL LIQUID IN BAY AREA 36 (SEE PHOTO 1 ON 11/12/2010).

10:10AM - PHOTO 1: TAKEN OF BAY AREA 36. PUMP IS BEING USED TO AGITATE THE CAUSTIC AND OIL LIQUID IN BAY AREA 36.

10:10AM - PHOTO 2: PHOTO TAKEN FACING SOUTH TOWARDS THE OFFICE BUILDING. PHOTO SHOWS RAINWATER STILL REMAIN IN THE PARKING LOT AREA.

10:42 - FIRST TRUCK CAME BACK FROM DISPOSAL FACILITY.

DELEK AND REBECCA WENT TO INSPECT THE TANKS FROM THE TANK FARM.

12:30PM - TRUCK (TANK) LEFT SITE. PH = 5.7

CONTINUE TO WORK ON BAY AREAS 34, 35, 36. NEUTRALIZING THE PH FROM THE BAY AREAS.

-I LEFT THE SITE AT 1:00PM (I WAS FEELING SICK).

-ADAM SAID THEY ARE GOING TO CONTINUE TO WORK ON THE BAY AREAS AND EMPTY OUT THE TANKS. TERRY HAD ASKED ME TO ASK ADAM WHY SHOULD WE EMPTY THE TANKS RATHER THAN JUST PLUG THE OIL HOLES FROM THE AST'S (ASPHALT STORAGE TANKS). ADAM SAID THAT MAJORITY OF THE TANKS ARE CORRODED AND WE STILL NEED TO CLEAN OUT THE TANKS. SINCE WE HAVE THE FUNDING, ITS A GOOD THING TO JUST EMPTY OUT THE TANKS NOW.

O. Salinas

11/2/10

NOV 13, 2010 (SAT) NOTES WRITTEN BY Ogr. Salinas

10:42 am - Called Adam for update on USOR.

- THEY ARE CONTINUING TO NEUTRALIZE THE LOW pH LOCATED IN THE TRUCK BAYS AND SOUTH CONTAINMENT AREA.
- THEY ARE ALSO GOING TO DRAIN SOME OF THE LEAKING H₂S CONTAMINATED TANKS IN THE NORTH TANK FARM INTO THE SECONDARY CONTAINMENT, PRIOR TO PUMPING INTO TANK TRUCKS TO DISPOSAL FACILITY.
- CALLED TERRY AND UPDATED HIM ON USOR PROCESS.

O Salinas

NOV 14, 2010 (SUN)

12:48 pm - I ARRIVED AT USOR AND TALKED TO NORM. STARTING NIGHT, THEY HAD PROBLEMS WITH H₂S FROM THE TANKS, SO THEY HAD TO STOP THE OPERATION. THEY HAVE TWO TRUCKS ON SITE FULL WITH WASTE FROM THE AST'S, BUT THEY ARE HIGH WITH CONCENTRATION OF H₂S, SO THEY ORDERED SCAVENGER WHICH WILL BE USED TO CONTROL AND LOWER THE H₂S IN THE TANK TRUCKS SO THEY CAN BE TREATED AT THE DISPOSAL FACILITY.

- LEFT A MESSAGE TO TERRY ABOUT USOR STATUS.

O Salinas

NOV 15, 2010 (MONDAY)

- TO THE OFFICE RECEIVED EMAILS FROM NORM ABOUT USOR PROCESS "STATUS"
- CUMULATIVE TOTAL LIQUIDS SHIPPED IS 185,000 GALLONS.
- ACCORDING TO EPA'S SITUATION REPORT ON NOV 13, 2010:
OPERATING PERIOD: 0700H TO 0700H.
- 1. Continue utilize TRASH PUMPS TO CONTROL LIQUID RUNOFF OFFSITE
- 2. Continue to relocate the damage/leaking drums & totes.
- 3. Continue neutralize of the low pH liquid in the TRUCK BAYS & SOUTH CONTAINMENT AREA.
- 4. DRAINED LEAKING H₂S CONTAMINATED TANKS (13, 14, 15, 16, 17, 18 & 24) IN THE NORTH TANK FARM AND THE SECONDARY CONTAINMENT.

O Salinas

NOV. 15, 2010 NOTES WRITTEN BY OLGA SALINAS

OLGA TO TRANSPORTING AND DISPOSAL OF WASTE.

5. CONTINUED TO CONDUCT FIELD VERIFICATION OF pH ON NON-HYDROCARBON WASTE.

6. TRANSPORTED 5000 GALLONS OF NON-HYDROCARBON WASTE TO TATE'S WASTE FOR DISPOSAL.

7. ~~CONDUCTED~~

NOV. 14 EPA'S SITUATION REPORT

1. CONTINUE TO STAFF 24 HR. SHIFT

2. CONTINUE UTILIZING TRASH PUMPS TO CONTROL LIQUID RUN-OFF OFF SITE.

3. CONTINUE TO CONDUCT ~~NEUTRALIZATION~~ NEUTRALIZE THE LOW pH LOCATED IN THE TRUCK BAYS & SOUTH CONTAINMENT AREA.

4. CONTINUE TO RELOCATE THE DAMAGED/LEAKING DRUMS AND TOTES.

- ARRIVED AT SITE AT 10:08 AM

- CITY OF PASADENA WAS ON SITE AND ARAH WAS TALKING TO THEM. THE HEALTH DEPARTMENT FROM THE CITY OF PASADENA WAS CONCERNED ABOUT THE TALL GRASS SURROUNDING THE FACILITY (USOR).

- BAY AREA 48 IS NEUTRALIZED AND BAY AREA 45 WILL BE NEXT. BAY AREA 48 HAS A pH OF 7.

- CURRENTLY TANK 12 IS BEING DRAINED, BUT ITS GETTING SLUDGY, SO THE NEXT TANK WILL BE TANK #6.

- MAIN CONCERN IS H₂S ON SITE. EVERYONE ON SITE IS WEARING A H₂S MONITOR. IT GOING BETWEEN TANKS IN THE TANK FARM. THEN THATS WHEN WE GET A HIGH CONCENTRATION OF H₂S.

- STEPHANIE PLANS TO GET TANKS FROM MCC EMPTY OUT TOO. H₂S IS ALSO A MAIN CONCERN AT THE MCC SITE. THIS WILL BE DONE AFTER LUNCH.

- TOOK LUNCH @ 12:15 PM

Olga

- NOV 15, 2010 (MON) NOTES WRITTEN BY OLGA SAMOVAR
- ARRIVED BACK TO USOP AT 1:15pm
 - WHEN I ARRIVED, STEPHANIE WAS SETTING UP ANALYSIS TO RUN ON BAY AREAS AND SECOND CONTAINMENT AREA ON THE SLUDGE. ~~SOME~~ SEMI-VOC'S AND VOC'S WILL BE ANALYZED ON SLUDGE. THIS WILL DETERMINE WHETHER WE CAN STORE AND RELICATE THE SLUDGE ON SITE OR DISPOSE OF THE SLUDGE TO A DISPOSAL FACILITY.
 - CURRENTLY THE OIL/WATER MIXTURE FROM THE AST'S IN THE NORTH TANK FARM SECONDARY CONTAINMENT IS BEING AERATED TO LOWER THE H_2S . ALSO H_2S SAVORER IS ON SITE AND IS BEING PUT IN TANK TRUCKS TO LOWER THE H_2S . MIXTURE IS BEING MIXED BY PUMPING TO THE DISPOSAL FACILITY (INTERBULF). BY THEN THE OIL/WATER MIXTURE AND H_2S SAVORER WILL BE MIXED BY THE TIME THE TANK TRUCKS GET TO INTERBULF.
 - 3:10pm - ADAM, STEPHANIE REBECCA (WESTON), JOE (EAGLE S&S) AND MYSELF WENT TO THE NORTH TANK FARM CONTAINMENT AREA TO TAKE SLUDGE SAMPLES. FIVE GRAB SAMPLES WILL BE TAKEN FROM THE NORTH TANK FARM CONTAINMENT AREA TO HAVE ONE COMPOSITE SAMPLE (ONE BUCKET).
 - 3:14pm - PHOTO 2: FIRST GRAB SAMPLE WAS TAKEN BETWEEN TANKS B-15 & B-16. SAMPLE TAKEN BY JOE (EAGLE S&S)
 - 3:14pm - PHOTO 1: PHOTO TAKEN OF NORTH TANK FARM CONTAINMENT AREA BEING AERATED TO LOWER THE H_2S CONCENTRATION. AERATION IS BEING DONE BETWEEN TANKS B-22 AND B-23.
 - 3:16pm - PHOTO 3: PHOTO SHOWS JOE DEPOSITING FIRST GRAB SAMPLE INTO BUCKET.
 - 3:18pm - PHOTO 4: PHOTO SHOWS JOE COLLECTING SECOND GRAB SAMPLE NEXT TO TANK B-23.
 - 3:19pm - PHOTO 5: PHOTO SHOWS JOE DEPOSITING SECOND GRAB SAMPLE INTO BUCKET.
- O. Samovar

[Faint, mostly illegible handwritten notes on page 28. A large diagonal line is drawn across the page. The date "11/15/10" is written vertically along this line.]

NOV 15, 2010 (MON) NOTES WRITTEN BY OLGA SALINAS

3:20pm - 3rd GRAB SAMPLE WAS TAKEN FROM AREA NEAR TANK B-21.

4th GRAB SAMPLE TAKEN NEAR TANK T-11

5th GRAB SAMPLE TAKEN NEAR TANK T-12

4th AND 5th GRAB SAMPLE TIME IS UNKNOWN BECAUSE JOE WENT BY HIMSELF TO GET THE GRAB SAMPLES.

THE LOCATION WHERE THE 4th & 5th GRAB SAMPLE WAS TAKEN MAY HAVE A HIGH CONCENTRATION OF H₂S AND THESE LOCATIONS ARE HARD TO REACH UNLESS YOU GET INSIDE THE NORTH TANK FARM CONTAINMENT AREA OR GET ON THE CATWALK (DANGEROUS, CATWALK HAS ALOT OF OIL ON IT).

JOE CAME BACK WITH THE BUCKET AT 3:35pm, WITH ALL 5 GRAB SAMPLES IN THE BUCKET.

4:00pm - PHOTO 6: ADAM IS MIXING ALL GRAB SAMPLES (5) IN THE BUCKET (WHICH WAS COLLECTED BY JOE). MIXING WILL HELP GET A GOOD SAMPLE FROM THE 5 GRAB SAMPLES COLLECTED IN THE NORTH TANK FARM CONTAINMENT AREA.

4:00pm - PHOTO 7: PHOTO SHOWS ADAM DEPOSITING SAMPLE INTO CONTAINER.

WE WERE UNABLE TO TAKE SLUDGE SAMPLES FROM THE SOUTH CONTAINMENT AREA OR THE BAY AREAS B34-36, BECAUSE THE LAB SENT WRONG SAMPLE CONTAINERS.

SLUDGE SAMPLES FROM THE SOUTH CONTAINMENT AREA AND BAYS 34-36 WILL BE TAKEN TOMORROW. SAMPLES TAKEN TODAY FROM THE NORTH CONTAINMENT AREA WILL BE SENT TO THE LAB TODAY.

4:20pm - LEFT SITE.

[A wavy line is drawn across the bottom of page 29, followed by a signature.]

D. Smith 11/15/10

NOV. 16, 2010 (TUES) NOTES WRITTEN BY OLGA SALINAS

1:20pm - ARRIVED AT USOR SITE.

I TAILED TO ADOM AND LAST NIGHT THEY HAD 9 TRUCK LOADS (45,000 BARROWS) SENT TO DISPOSAL FACILITY FROM THE NORTH & SOUTH CONTAINMENT AREA AND FROM BAY AREAS 45 & 48. EVERYTHING IS NEUTRALIZED. BAY AREAS 34-36 HAS SLUDGE AND HAS BEEN NEUTRALIZED WITH CAUSTIC FROM THE SITE. TODAY THEY HAD 1 TANK TRUCK LOAD FROM MCC FROM THE Z-TANK (C1 CONTACT CHAMBER) SENT TO THE DISPOSAL FACILITY. THEY TOOK SAMPLES OF SLUDGE FROM THE SOUTH CONTAINMENT AREA AT 11:10 AM AND FROM BAY AREAS 34-36 AT 11:40 AM. SAMPLES WERE TAKEN BY ADOM AND PH IN THE BAY AREA IS 3.6. THEY USED THE CAUSTIC ON SITE TO GET SAMPLES (BAY AREA) TO A PH OF 3.6.

AS OF 7:00 AM THIS MORNING A TOTAL OF 235,000 GALLONS OF OIL/WATER HAS BEEN REMOVED AND DISPOSED TO INTERGULF (DISPOSAL FACILITY).

- CURRENTLY, EPA IS PUMPING OILY WATER FROM THE TOP OF THE TANKS INTO THE SECONDARY CONTAINMENT AREA. APPARENTLY THE OILY LIQUID IS STUCK ON TOP AND CAN NOT DRAIN TO THE BOTTOM OF THE TANKS BECAUSE THE SLUDGE IS KEEPING THE OILY LIQUID FROM DRAINING INTO THE BOTTOM OF THE TANKS. TONIGHT THEY PLAN TO DISPOSE THE OILY WATER FROM THE NORTH CONTAINMENT AREA (WHICH WAS PUMPED FROM THE TOP OF THE TANKS) TO THE DISPOSAL FACILITY (INTERBAIE).

- TOMORROW ADAM WANTS TO TRANSFER THE SLUDGE FROM BAYS 34-36 TO BAY 48.

W. B. Salub

11/16/10

Sally

NOV 17, 2010 (WED) NOTES TAKEN BY OLGA SALINAS

8:54 AM - I ARRIVED AT USOR SITE.

- ADAM IS ON HIS WAY IN. STEPHANIE SAID THAT THEY HAD 5 TRUCK LOADS DEPOSITED LAST NIGHT.

- CURIOSITELY EAGLE S&S HAS BEEN EMPTYING TANKS B-14 AND B-17.

- BAY AREAS B34-36 HAVE BEEN EMPTIED FROM OILY WATER, HOWEVER IT KEEPS ON FILLING BECAUSE THERE IS A HOLE IN A WALL OF THE ACID/CAUSTIC CONTAINMENT AREA AND IS GETTING IN THE BAY AREAS (B34-36).

- TANKS 13, 14, 15, 16, 17 AND 18 ARE ALL DRAINED DOWN WITH APPROX 1 FT OF OILY WATER LEFT. THE ONLY THING LEFT IN TANKS IS THE SLUDGE. THESE TANKS ARE NO LONGER PUMPABLE.

- TANKS 1, 2, 7 & 8 ARE LEFT AND NEEDS TO BE PUMPED FROM THE TOP OF THE TANKS. ONLY WATER FROM THESE TANKS WILL BE PUMPED INTO THE NORTH FARM TANK CONTAINMENT AREA.

- TANKS 21 & 23 ARE NO LONGER PUMPABLE AND TANKS 22 & 24 IS DRAINED AND ONLY SLUDGE IS LEFT.

11:10 AM - LEFT SITE TO GO BACK TO OFFICE.

11:30 AM - TALKED TO TERRY ABOUT STATUS OF THE TANKS AT USOR.

11:35 AM - TOOK LUNCH.

12:35 PM - SEND TERRY AN EMAIL ON STATUS OF TANKS.

12:55 PM - LEFT OFFICE TO GO BACK TO SITE.

1:15 PM - ARRIVED BACK TO USOR. TALKED TO ADAM AND THEY ALREADY CHECKED THE LIQUID LEVEL OF THE LARGER TANKS (7-5, 6, 11 & 12). THE LIQUID LEVEL OF TANKS ARE AT THE SAME HEIGHT AS THE SMALL TANKS SO THESE TANKS 3/4 FULL.

1:55 PM - I WENT TO THE NORTH TANK FARM SECONDARY CONTAINMENT AREA, TO INSPECT THE CONTAINMENT WALLS.

Sally

Nov. 17, 2010 (Wed) Notes taken by OIAA Salinas

2:01pm - PHOTO 1 - PHOTO SHOWS WEST SIDE OF THE NORTH TANK FARM CONTAINMENT AREA WALL.

2:01pm - PHOTO 2 - PHOTO SHOWS WEST SIDE OF THE NORTH TANK FARM CONTAINMENT AREA LOOKING BETWEEN CONTAINMENT AREA WALL AND OUTER WALL.

2:04pm - PHOTO 3 - SHOWS ENTIRE WEST SIDE OF THE NORTH TANK FARM CONTAINMENT WALL.

2:05pm - PHOTO 4 - SHOWS NORTH SIDE CORNER (NORTHWEST) WALL OF THE NORTH TANK FARM CONTAINMENT WALL.

2:05pm - PHOTO 5 - SHOWS NORTH SIDE OF WALL OF THE NORTH TANK FARM CONTAINMENT WALL. TANKS IN PICTURE FROM LEFT TO RIGHT IS D-18, T-12 AND T-6.

2:07pm - PHOTO 6 - SHOWS NORTH SIDE OF WALL OF THE NORTH TANK FARM CONTAINMENT WALL. TANKS IN PICTURE FROM LEFT TO RIGHT IS D-18 AND T-12.

2:07pm - PHOTO 7 - SHOWS NORTH SIDE OF WALL OF THE NORTH TANK FARM CONTAINMENT WALL. TANK IN PICTURE IS B-24.

2:07pm - PHOTO 8 - SHOWS NORTH SIDE OF WALL (NORTHEAST CORNER) OF THE NORTH TANK FARM CONTAINMENT WALL. TANK IN PHOTO IS B-24.

2:09pm - PHOTO 9 - SHOWS SUBSTANCE (NOT SURE IF ITS DIRT OR OIL RESIDUE BETWEEN ROLL-DETBXES IN PARKING LOT.

2:10pm - PHOTO 10 - SHOWS RAINWATER STILL REMAINING ON THE PARKING LOT.

- CURRENTLY BAY AREA 48 IS BEING NEUTRALIZED AND GETTING READY TO Haul BY TANK TRUCKS TONIGHT. BAY AREAS 34-36 ARE FREE OF LIQUID AND ONLY SLUDGE REMAINS. GETTING READY TO PLAN TO MOVE SLUDGE FROM BAY AREAS 34-36 TO BAY AREAS 45 & 48 BY AIR ^{MOVING} GENERATOR FOR TOMORROW AT 9:00AM.

FOUND OUT FROM EAGLE SAS THAT BAY AREA 34 & 36 IS 8 FEET DEEP AND HAS 5 FEET OF SLUDGE IN BAY AREAS 34 & 36.

NOV 18, 2010 (THURS) NOTES WRITTEN BY CIGASOLINAS
8:50 AM - I ARRIVED AT USOR SITE.

TANKS LEFT TO DRAIN ARE TANK 1 & 7. WE NEED
MORE INFORMATION ON TANK 20. TANKS 5, 6, 11 & 12
ARE DRAINED FROM THE BOTTOM.

-GALLONS DISPOSED FROM SITE: 320,000 GALLONS

LOW PH MATERIAL ONSITE:

SLUDGE - BAY AREAS 34, 35 & 36

OILY WATER - 45 BAY AREAS 45, 32 & 40

EMPTY TANKS: TANK 19

8:50 AM - WAITING FOR EQUIPMENT TO ARRIVE ON SITE
TO TRANSFER SLUDGE FROM BAY AREAS 34, 35 & 36.

-TOTAL OF 67 TRUCKS WHEN DUT FROM THE SITE TO
THE DISPOSAL FACILITY. 3 TRUCKS CAME BACK TO
BE RETREATED ON SITE AND TRANSFERRED TO OTHER
TRUCKS.

-CURRENTLY BAY AREA 45 IS BEING NEUTRALIZED
BECAUSE PH IS 1.4. LARGER TANKS ARE STILL
BEING DRAINED IN THE NORTH TANK SECONDARY
CONTAINMENT AREA. THE LARGER TANKS ARE NOT
BEING PUMPED FROM THE TOP OF THE TANKS, BECAUSE
IT'S TOO HARD TO PUMP LIQUID FROM TOP OF TANKS, SO
IT'S ONLY BEEN DRAINED.

10:17 - AIR TRUCK ARRIVED AT SITE (AIR MOVER)

10:29 - PHOTO 1: PHOTO OF AIR MOVER TRUCK IN
PARKING LOT

10:31 - PHOTO 2: PHOTO SHOWS EAGLE S&S WORKERS
GETTING BAY AREA 48 READY FOR SLUDGE FROM Bay 34-36.

10:33 - PHOTO 3: PHOTO SHOWS EAGLE S&S WORKING ON
BAY AREA 48.

10:41 AM - PHOTO 4: PHOTO SHOWS USA ENVIRONMENTAL
STAFF HOOKING UP HOSES TO AIR MOVER.

11:00 AM - PHOTO 5: SHOWS AIR MOVER SUCKING
SLUDGE FROM BAY AREA 34 INTO AIR MOVER.

Nov. 17, 2010 (THURS) NOTES WRITTEN BY OGA SPAINAS

11:20am ADAM & JAMES (WEBSTER) ALONG WITH EAGLE S&S STAFF ARE CHECKING ALL ROLL-OFF BOXES TO CHECK THE LEVELS OF THE ROLL-OFF BOXES. WE ARE TRYING TO SEE IF WE HAVE ANY ROOM LEFT ON SOME OF THE ROLL-OFF BOXES THAT WAY WE CAN STORE THE TREATED SLUDGE (TEMPORARY STORAGE).

12:00pm - MOST OF THE SLUDGE IS REMOVED FROM BAY AREA 35, THERE IS ABOUT A FOOT LEFT ON BAY AREA 35, BUT THE SLUDGE IS LIKE A CAKE (HARD SUBSTANCE). EAGLE S&S WILL GO DOWN THERE AND BREAK THE HARD LAYER OF SLUDGE FROM BAY AREA 35.

12:20pm - TOOK LUNCH

1:05pm - ARRIVED BACK TO SITE FROM LUNCH.

EAGLE S&S STAFF ARE ON LUNCH.

1:10pm - EAGLE STAFF STOPPED BACK WORKING ON AIR MOVER.

IN ORDER TO GET TO THE HARD LAYER SLUDGE IN BAY AREA 35, WE NEED TO SEND SOMEONE IN A "CONFINED SPACE AREA," BUT THE WALL WHICH IS SHAPED BY BAY AREA 35 & 34 IS COLLAPSING, SO BEFORE SENDING SOMEONE IN A "CONFINED SPACE AREA" IN BAY AREA 35, WE NEED TO LOWER THE SLUDGE LEVEL OF BAY AREA 34, FOR SAFETY. WE ARE AFRAID THAT THE PRESSURE OF THE SLUDGE IN BAY AREA 34 WILL CAUSE THE WALL (SHAPED WALL FOR BAY AREA 35 & 34) TO COLLAPSE.

2:25pm - ADAM, JAMES AND I WENT TO MCC TO LOOK AT SITE. ADAM SHOWED US WHERE HE WANTS TO TRANSFER THE SLUDGE FROM USSR. THIS AREA LOOKS LIKE IT WAS A BIO-TREATMENT CONTAINMENT (ITS NEXT TO THE CUMBERS). THERE IS GRASS AND BUSH AND SMALL TREES (3 to 4 feet tall) INSIDE THIS CONTAINMENT. ADAM THINKS THERE IS CONCRETE UNDER THE GRASS. I AM NOT TO SURE SINCE GRASS AND SMALL TREES ARE GROWING IN THIS AREA. WE MIGHT NOT USE THIS AREA TO TRANSFER THE SLUDGE, SINCE WE MAY HAVE

OK

NOV. 18, 2010 (THURS) NOTES WRITTEN BY OLGA SALINAS
 plenty of roll-off boxes to store the sludge
 (treated sludge) from bay areas 34-36.

3:10 pm - Arrived back to USOR. Eagle sts is still
 transferring sludge from bay areas 34 and 35.
 They think they should finish transferring the
 sludge from bay areas 34, 35 & 36 by tonight.
 Sludge from bay areas 34, 35 & 36 are being
 treated in bay areas 45 & 48. Tonight they are
 going to have trucks load the oily water from
 the north tank farm secondary containment area.
 - Currently: 3,000 gallons have been transferred
 from bay areas 34 & 35. Once it was transferred
 to bay area 48 the pH was 4.5. Bay area 48 is
 full, so the oily mixture/sludge (it looks like
 slurry mud) was transferred to the south
 containment area to make room in bay area 48. Bay
 area 45 is still full from the neutralized oily
 water from yesterday. Waiting for tank trucks
 to transfer oily water from bay area 45 to disposal
 facility. The mini excavator is also used to
 transfer the sludge from bay area 34. The
 sludge being collected from the mini excavator
 is being temporarily stored in roll-off boxes
 with a liner to protect the roll-off boxes
 from acidic sludge. Roll-off boxes are only being
 1/2 full and is on its second roll-off box as of
 4:00 pm. Roll-off boxes with acidic sludge will
 be treated after Thanksgiving holiday. Roll-off
 boxes will be covered and secured. Air mover
 is on its second truck load from bay area 34.

- 4:31 pm - I left site.

Olga Salinas

11/18/10

NOV 19, 2010 (FRIDAY) NOTES WRITTEN BY DEGA SALINAS
 10:00am - Arrived at site. STEPHANIE WAS IN THE OFFICE
 AND SAID RIGHT NOW THEY HAVE SOMEONE IN "CONFINED SPACE
 ENTRY" IN BAY AREA 34. MOST OF THE OILY SLUDGE HAS
 BEEN REMOVED, THE REST WILL BE REMOVED BY SHOWER.
 ONLY HAD ONE TANK TRUCK TRANSFER OILY WATER FROM
 THE NORTH TANK FARM CONTAINMENT AREA LAST NIGHT.

10:13am - Eagle Staff came in and said BAY AREA
 45 HAS A PH OF 7.1.

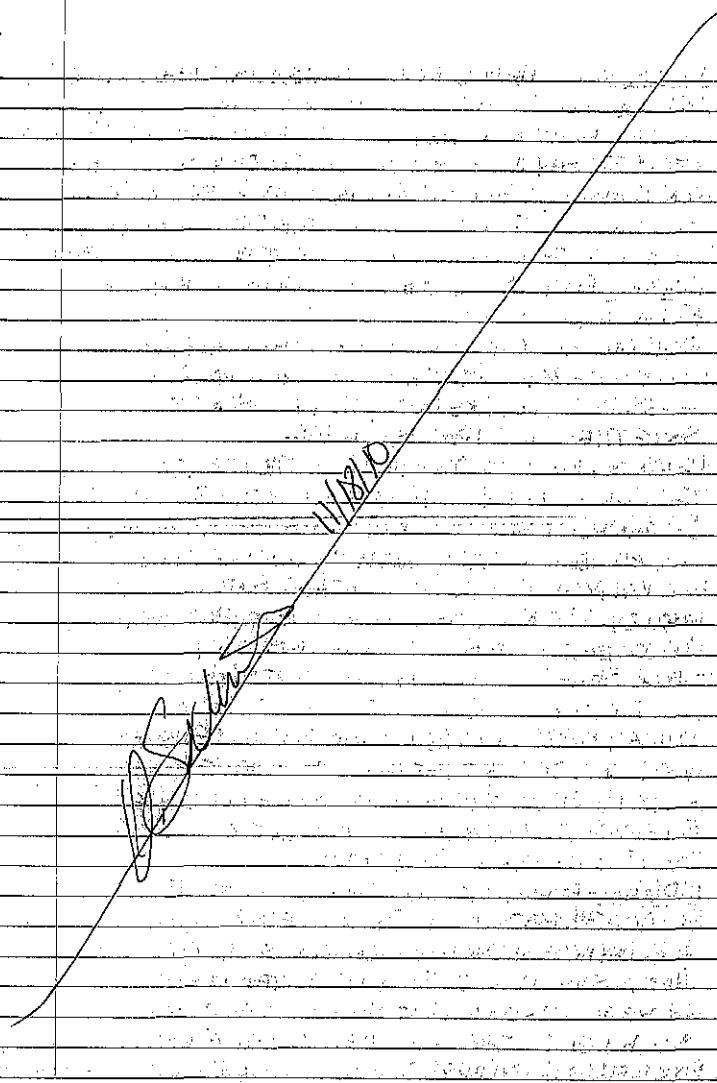
10:40am - Eagle foreman (JAMES) SAID THEY ARE
 ALMOST DONE REMOVING THE SLUDGE FROM BAY AREAS
 34 & 35. ONCE THEY ARE DONE, THEY ARE GOING TO
 SHOVE THE WALLS FROM BAY AREAS.

- PRELIMINARY RESULTS CAME IN FROM THE LAB FOR
 THE SLUDGE ANALYSIS FROM THE NORTH & SOUTH
 CONTAINMENT AREA AND BAY AREAS 34-36. RESULTS
 SHOWED THAT NORTH & SOUTH CONTAINMENT AREAS
 AND BAY AREAS (34-36) ALL CONTAIN BENZENE AND
 MERCURY. THE NORTH CONTAINMENT AREA HAD HIGHER
 CONCENTRATION OF BENZENE AND MERCURY.

- Eagle Staff IS LOOKING AROUND SITE TRYING TO
 LOOK FOR AVAILABLE ROLL-OFF BOXES TO STORE THE
 SLUDGE RIGHT NOW THEY FOUND 3 ROLL-OFF BOXES
 AND FOUND ONE, BUT HAS PAINT CANS IN IT. PAINT
 IN THE PAINT CANS IS DRIED UP, SO WE ARE GOING
 TO REMOVE THE PAINT CANS TO ANOTHER ROLL OFF
 BOX THAT CONTAINS TRASH ONLY.

11:06am - AOMM, STEPHANIE AND I WALKED TO
 BAY AREA 34. MAJORITY OF THE SLUDGE IS REMOVED
 FROM BAY AREA 34. OUR MAIN CONCERN IS THE BACKWALL
 THAT IS SHORED WITH THE SOUTH CONTAINMENT AREA.
 WE ARE ALSO CONCERN THAT SOMEONE MAY COME IN
 SITE AND EXCEL THE 3 FEET DEEP BAY AREA AND
 BACK WALL CAN COLLAPSE. TO AVOID THIS WE WANT

DS



NOV. 19, 2010 (FRI) NOTES WRITTEN BY OLGA SALINAS
TO FILL THE CONTAINMENT AREA IN BAY AREA 34 WITH DIRT.
BAY AREA 34 IS 20X10' AND 3 FEET DEEP. WE ALSO PLAN
TO POUR CONCRETE IN BAY AREA 34. THIS WILL ALSO KEEP
THE BACK WALL FROM COLLAPSING.

1:00pm - SECOND TANK TRUCK LEFT THE SITE. OILY WATER
WAS PUMPED FROM BAY AREA 45 AND NORTH TANK FARM
CONTAINMENT AREA. OILY WATER IS GOING TO BE DISPOSED
TO INTERGULF.

- CURRENTLY EAGLE IS GETTING ROLL-OFF BOXES TOGETHER,
TO HAVE READY TO STORE SLUDGE. ALSO STEPHANIE IS
ALSO CHILLING VENDORS TO BUY FILLER DIRT TO FILL
BAY AREA 34.

1:20pm - LEFT SITE.

NOV. 22, 2010 (MONDAY) - NOTES WRITTEN BY OLGA SALINAS
9:30 AM - ARRIVED ON SITE (USDR)

TALKED TO ADAM ABOUT THE STATUS OF THE CLEANUP.
THEY REMOVED ALL THE SLUDGE FROM BAY AREAS 34, 35
AND 36. THERE IS A SMALL RESERVE OF SLUDGE IN
BAY AREA 36. THE SLUDGE HAS BEEN STORED IN ROLL-OFF
BOXES (5 ROLL-OFF BOXES) ON SITE AND ROLL-OFF BOXES
HAVE BEEN INSTALLED WITH POLY LINER PRIOR TO STORING
THE SLUDGE IN ROLL-OFF BOXES. THE NORTH TANK FARM
CONTAINMENT AREA ONLY HAS 3 INCHES OF OILY LIQUID
LEFT IN THE CONTAINMENT AREA. THE HANDLES FROM THE
TANKS ARE GOING TO BE REMOVED, THAT WAY NO ONE
CAN OPEN THE VALVES FROM THE TANKS. THE SOUTH
CONTAINMENT AREA ALSO HAS A FEW INCHES OF OILY
WATER IN THE CONTAINMENT AREA. ADAM DOESN'T
BELIEVE THAT THE BACK WALL OF BAY AREA 34 IS
GOING TO COLLAPSE. ONE OF THE EAGLE STAFF (JESSE)
WILL COME BY TO THE SITE TO MAKE DAILY INSPECTIONS
TO MAKE SURE EVERYTHING IS OK. THERE ALSO GOING TO
HAS HOSES AND PUMPS JUST IN CASE WE GET A LOT OF RAIN.

11/22/10

[Handwritten scribbles and a large diagonal line across the page]

NOV. 22, 2010 (MONDAY) NOTES WRITTEN BY DGA SALINAS

- TOTAL DAILY LIQUID DISPOSED OF AS OF TODAY 340,000 GALLONS.

12:35pm - WENT TO LUNCH

1:00pm - CAME BACK FROM LUNCH

- CURRENTLY EAGLE S&S HAVE BEEN ASSORTING THE DRUMS & TOTES IN THE WAREHOUSE. ALSO EAGLE IS ASSEMBLING A FENCE AROUND BAY AREAS 34, 35 AND 36 TO KEEP ANNUAGE FROM ENTERING THE BAY AREAS WHEN EVERYONE IS OUT FOR THE THANKSGIVING HOLIDAYS. PUMPS AND HOSES WILL BE ON SITE IN CASE THE SITE RECEIVES RAIN AND EAGLE STAFF WILL KEEP AN EYE ON THE SITE IN CASE WE GET RAIN AND PUMP RAIN INTO CONTAINMENT AREAS.

1:45pm - WENT TO LOOK AT THE FENCE BEING INSTALLED

Around Bay Areas 34, 35 and 36.

1:47pm - PHOTO 1: PHOTO SHOWS SAFETY FENCE AND ORANGE FENCE INSTALLED AROUND BAY AREA 36. ALSO ROLL-OFF BOX BLOCKING ENTRY WAY TO BAY AREA.

1:48pm - PHOTO 2: PHOTO SHOWS A CLOSER VIEW OF THE SAFETY FENCE AROUND BAY AREA 36.

1:49pm - PHOTO 3: PHOTO SHOWS A FENCE (SAFETY FENCE) AROUND BAY AREA 34 AND 35.

1:49pm - PHOTO 4: SHOWS SAFETY FENCE INSTALLED AROUND BAY AREA 34 AND 35.

- EAGLE STAFF STILL WORKING ON SECURING BAY AREAS 34, 35 & 36 AND ASSORTING DRUMS & TOTES IN WAREHOUSE. THERE WERE A FEW DRUMS AND TOTES THAT WERE LEAKING AND DAMAGED. A TOTE THAT WAS LEAKING IS EMPTY AND TOTE IS BEING PLACED IN BAY AREA 45.

3:20pm - LEFT SITE.

[Handwritten signature]

11/23/10
John

NOV 23, 2010 (TUES) NOTES WRITTEN BY CLARA SALINAY

- 9:06 AM - ARRIVED AT THE SITE.
- TALKED TO ADAM. THEY ARE WRAPPING UP THE SITE FOR THE HOLIDAYS. THEY HAVE A SPILL KIT ON SITE IN CASE A SPILL OR FLOODING OCCURS ON THE SITE DURING THE THANKSGIVING HOLIDAY. PUMPS AND HOSES ARE ALSO ON SITE. EAGLE STAFF WILL COME BY THE SITE ON WEDNESDAY, FRIDAY AND SUNDAY OF ANY DAY IT RAINS. IF FLOODING IS OCCURRING IN THE PARKING LOT, EAGLE STAFF WILL PUMP RAINWATER FROM THE PARKING LOT TO THE STORMWATER POND (WEST OF THE WAREHOUSE). (CURRENTLY EAGLE STAFF ARE REMOVING THE HANNING'S FROM THE TANKS AND SORTING DRUMS + TOTES IN THE WAREHOUSE (UNSTACKING DRUMS FROM ON TOP OF EACH OTHER). DRUMS THAT STACKED ON TOP OF EACH OTHER, THE BOTTOM DRUMS ARE COLLAPSING, SO TO AVOID LEAKING AND COLLAPSING, THE DRUMS ARE BEING UNSTACKED. EAGLE STAFF IS ALSO MAKING SURE ALL ROLL-OFF BOXES ARE SECURED AND SEALED.
- ADAM WAS THINKING ABOUT GETTING TOGETHER MONDAY NOV. 29, 2010 AT THE SITE TO DISCUSS OPTIONS HOW TO HANDLE SLUDGE. HE WANTS TO MEET AROUND 12-2PM, TO DISCUSS OPTIONS.
- 10:45 AM - WENT ON SITE TO TAKE PICTURES OF THE SITE BEFORE CLOSING BEFORE THE HOLIDAYS.
- 10:48 AM - PHOTO 1 - PHOTO SHOWS ROLL-OFF BOXES COVERED LOCATED WEST OF THE OFFICE BUILDING.
- 10:50 AM - PHOTO 2 - PHOTO SHOWS ROLL-OFF BOXES COVERED LOCATED ON THE NORTH SIDE OF THE FACILITY.
- 10:50 AM - PHOTO 3 - PHOTO SHOWS ROLL-OFF BOXES COVERED LOCATED WEST OF THE OFFICE BUILDING.
- 10:51 AM - PHOTO 4 - PHOTO SHOWS DRUMS STACKED IN THE WAREHOUSE WITH CAUTION TAPE AND LABELED.

11/23/10

Salinas

NOV. 23, 2010 (TUES) NOTES WRITTEN BY DGA SPUNAP
 IF CONTENTS IN THE DRUMS ARE FLAMMABLE, NON-FLAMMABLE,
 CORROSIVE.

10:51 AM - PHOTO 5 - PHOTO SHOWS TOTE DAMAGED WITH
 LABEL "NON CORROSIVE / NON FLAMMABLE"

10:52 AM - PHOTO 6 - PHOTO SHOWS DRUM LABEL

"CONTAINMENT A HAZARDOUS FLAMMABLE COMBUSTIBLE"

10:52 AM - PHOTO 7 - PHOTO SHOWS TOTES STORED
 IN THE WAREHOUSE WITH CAUTION TAPE AND LABELED

"CONTAINMENT A POTENTIAL OXIDIZERS"

10:54 AM - PHOTO 8 - PHOTO SHOWS ROLL-OFF BOXES
 COVERED AND LOCATED EAST OF THE WAREHOUSE

10:54 AM - PHOTO 9 - PHOTO SHOWS ROLL-OFF BOXES
 COVERED AND LOCATED EAST OF THE WAREHOUSE

10:55 AM - PHOTO 10 - PHOTO SHOWS ROLL-OFF BOXES
 COVERED AND LOCATED IN FRONT OF THE FILTER PRESS
 AND DECAISTER SYSTEM CONTAINMENT AREA

10:55 AM - PHOTO 11 - PHOTO SHOWS BAY AREAS 45 & 48

10:56 AM - PHOTO 12 - PHOTO SHOWS BAY AREAS 34,
 35 & 36 SECURED WITH SAFETY FENCE

10:56 AM - PHOTO 13 - PHOTO SHOWS BAY AREA 36
 SECURED WITH SAFETY FENCE AND COVERED ROLL-OFF
 BOXES BLOCKING ENTRY OF BAY AREA

10:57 AM - PHOTO 14 - PHOTO SHOWS INSIDE TANK FARM
 NORTH CONTAINMENT AREA. TANK 23 IS IN THE PHOTO

10:58 AM - PHOTO 15 - PHOTO SHOWS DEPTH OF NORTH
 TANK FARM CONTAINMENT AREA. DEPTH SHOWS
 APPROXIMATELY 1 FOOT OF SPACE. APPROX 1 FOOT OF
 OILY WATER HAS BEEN DRAINED (PUMPED) FROM THE
 THE NORTH TANK FARM CONTAINMENT AREA

11:15 AM - I LEFT THE SITE. ADAM IS WAITING ON

STE TO GET KEY TO LOCK FACILITY FROM ONE OF THE
 FACILITY STAFF. ONCE HE GETS HIS KEY, HE WILL BE LOCKING
 THE GATES TO THE FACILITY.

Salinas

11/23/10

DEC 1, 2010 (WEDNESDAY) NOTES WRITTEN BY OLGA SALINAS

9:46 AM - ARRIVED AT SITE (USDR)

MONDAY, NOV 29, 2010 - EPA AND CONTRACTORS TRAVEL BACK TO HOUSTON FROM THANKSGIVING HOLIDAY.

TUESDAY, NOV 30, 2010 - EPA AND CONTRACTORS HAD A MEETING TO DISCUSS PLAN TO HANDLE SLUDGE.

TALKED TO ADAM WHEN I ARRIVED ON SITE. TODAY VACUUM TRUCKS ARE COMING IN TO VACUUM LIQUIDS OUT OF THE NORTH AND SOUTH CONTAINMENT AREAS. pH WAS TAKEN IN BAY AREAS 34-36 AND THERE IS NOT A PROBLEM WITH pH. SLUDGE FROM THE SOUTH CONTAINMENT AREA IS NOT HAZARDOUS, SO THE SLUDGE IS GOING TO BE SENT TO REPUBLIC FOR DISPOSAL. SLUDGE FROM THE NORTH CONTAINMENT AREA IS HAZARDOUS SINCE IT CONTAINS BENZENE AND PLAN TO STORE THE HAZARDOUS SLUDGE SOMEWHERE ON SITE WHERE IT WON'T HARM THE ENVIRONMENT. SLUDGE IN ROLL-OFF BOXES (WHICH CAME FROM BAY AREAS 34-36) HAVE pH PROBLEMS, SO THE SLUDGE IS GOING TO BE NEUTRALIZED ON SITE, THEN DISPOSED TO REPUBLIC.

REPORT STATUS ON USR TO TERRY ANDREWS.

TALKED TO TERRY AND ADAM (TALKED TO TERRY ON PHONE)

ABOUT FILLING BAY AREAS 34-36 WITH FILL DIRT AND COVER WITH CONCRETE. ANOTHER OPTION TALKED ABOUT WAS FENCE THE AREA, ADAM THINKS THAT FILLING IT WITH DIRT AND COVER IT WITH CONCRETE WILL DO WELL, SINCE THE BAY AREAS CAN NOT BE COMPLETELY CLEAN AND WOULD HAVE SOME SLUDGE RESIDUE AND MAY CAUSE RE-CONTAMINATION IF IT RAINS AND RUNOFF WILL FILL THE PARKING LOT AND RUN OFF TO VINCE BAYOU, THIS WILL CAUSE EPA TO RETURN TO THE SITE AND RE-CLEAN THE SITE. THIS OPTION IS STILL BEING THOUGHT OVER.

TODAY ADAM SAID THEY ARE GOING TO VACUUM LIQUIDS FROM NORTH & SOUTH CONTAINMENT AREA AND HAVE ONE OF THE ROLL-OFF BOXES WITH SLUDGE (LOW pH).

01
12/08/10

Q. Salinas

DEC 1, 2010 (WEDNESDAY) NOTES WRITTEN BY OSEA SALINAS
NEUTRALIZED ON SITE.

- 11:10 AM - LEFT SITE AND HEADED BACK TO THE OFFICE AND HAVE LUNCH.
- 11:30 AM - ARRIVED AT OFFICE (TCEQ), WORK ON USOR SUMMARY (SITE SUMMARY).
- 1:37 PM - ARRIVED BACK TO USOR.

TALKED TO ADAM AND THEY WERE DISCUSSING HOW THEY WERE GOING TO TREAT THE SLUDGE IN THE ROLL-OFF BOX. SLUDGE IN THE ROLL-OFF BOXES ARE GOING TO BE NEUTRALIZED FROM INSIDE THE ROLL-OFF BOXES. THEY ARE GOING TO ADD CAUSTIC A LITTLE AT A TIME, SO THAT WAY NO HEAT OR REACTION OCCURS INSIDE THE ROLL-OFF BOXES. ONCE THE SLUDGE IS NEUTRALIZED, SLUDGE WILL BE CHARACTERIZED BY LAB BEFORE GETTING DISPOSED. ONCE ROLL-OFF BOXES ARE NEUTRALIZED, THE INDUSTRIAL AIR MONITOR WILL BE SENT ON SITE TO TRANSFER THE SLUDGE FROM THE SUIT CONTAINMENT AREA AND SLUDGE FROM ROLL-OFF BOXES AND DISPOSED TO REPUBLIC (DISPOSAL FACILITY).

- 1:54 PM - CALLED TERRY AND UPDATED HIM ON USOR STATUS (NEUTRALIZING SLUDGE INSIDE ROLL-OFF BOXES).
- 2:04 PM - HEADED TOWARDS ROLL-OFF BOXES TO SEE HOW SLUDGE IS BEING HANDLED.
- 2:09 PM - PHOTO 1: PHOTO SHOWS MINI EXCAVATOR MIXING SLUDGE INSIDE ROLL OFF BOX. CAUSTIC HAS NOT BEEN ADDED YET.
- 2:10 PM - PHOTO 2: PHOTO SHOWS PUMP AND 6 INCH HOSE TO PUMP THE SLUDGE INTO ROLL OFF BOX.
- 2:11 PM - PHOTO 3: PHOTO SHOWS EAGLE SWIS STAFF GETTING CAUSTIC READY TO USE IN ROLL-OFF BOX.
- 2:11 PM - PHOTO 4: PHOTO SHOWS MINI EXCAVATOR MIXING SLUDGE INSIDE ANOTHER ROLL-OFF BOX.

Q. Salinas

12/01/10

DEC 1, 2010 (WEDNESDAY) NOTES TAKEN BY DISASMUND

- I ASKED ADAM WHAT THEY WERE GOING TO USE TO NEUTRALIZE THE SLUDGE IN THE ROLL-OFF BOXES, HE SAID THAT THEY WILL BE USING THE CAUSTIC IN THE ACID/CAUSTIC CONTAINMENT AREA.

- DEK came back from reading the pH and taking samples of the sludge in the roll-off boxes. HE SAID THE FIRST ROLL-OFF BOX (FIRST ROLL-OFF BOX USED TO STORE SLUDGE FROM THE BAY AREAS) HAS THE LOWEST pH, WHICH IS APPROX 3.2. THE OTHER ROLL-OFF BOXES HAS A HIGHER pH OF 4.0. THE SLUDGE SAMPLES TAKEN BY DEK WILL BE ANALYZED AND PROFILED. ONCE THE SLUDGE IS PROFILED, WE WILL FIGURE WHAT TO DO NEXT WITH THE SLUDGE. THERE WAS TALK ABOUT MAYBE WE DON'T NEED TO NEUTRALIZE THE ROLL-OFF BOXES WITH SLUDGE THAT HAD pH OF 4, BUT WE ARE GOING TO WAIT TO SEE WHAT THE PROFILE SAYS. IF THE PROFILE SAYS THE pH NEEDS TO BE AT 5, THEN WE WILL NEUTRALIZE THE SLUDGE TO HAVE A pH OF 5 (AS AN EXAMPLE).

3:50pm - LEAVE SITE.

- OH JUST TO CLARIFY, THE PROFILE IS FROM THE DISPOSAL FACILITY TO LET US KNOW WHAT pH IS ACCEPTABLE TO DISPOSE TO DISPOSAL FACILITY (REPUBLIC).

DEC 3, 2010 (FRIDAY)

9:03am - ARRIVED AT SITE (USC).

TALKED TO ADAM ABOUT STATUS ON CLEANUP. YESTERDAY THEY CONTINUED MIXING THE SLUDGE IN THE ROLL-OFF BOXES AND FOUND THAT WE DID NOT HAVE A PROBLEM WITH pH. AFTER CONTINUOUS MIXING THE SLUDGE IN THE ROLL-OFF BOXES, THE pH RANGED FROM 4.5 TO 5.2. THE DISPOSAL PROFILE SAYS THEY WILL ACCEPT pH BETWEEN 4 TO 11.

12/03/10

DEC 3, 2010 (FRIDAY) NOTES WRITTEN BY OLGA SALINAS

- TODAY THE SLUDGE WILL BE PUT INTO VACUUM BOXES FROM ROLL-OFF BOXES. INSTEAD OF THE 6" HOSE WITH PUMP, WE WILL BE USING INDUSTRIAL AIR MOVER TO TRANSFER THE SLUDGE FROM ROLL-OFF BOXES TO VACUUM BOXES.
- 9:32am - VACUUM BOXES AND INDUSTRIAL AIR MOVER ARRIVED ON SITE.
- 9:56am - INDUSTRIAL AIR MOVER STARTED TO TRANSFER SLUDGE FROM ROLL-OFF BOXES TO VACUUM BOX.
- 9:59am - PHOTO 1: PHOTO SHOWS INDUSTRIAL AIR MOVER CONNECTED TO VACUUM BOX.
- 10:00am - PHOTO 2: SHOWS ROLL-OFF BOX CONNECTED TO VACUUM BOX. PHOTO SHOWS SLUDGE BEING TRANSFERRED FROM ROLL-OFF BOX TO VACUUM BOX WHILE MINI EXCAVATOR MIXING SLUDGE FROM ROLL-OFF BOX.
- 10:00am - PHOTO 3: PHOTO SHOWS THE ENTIRE PROCESS. PHOTO SHOWS INDUSTRIAL AIR MOVER BEING USED AS A ~~SUCKER~~ SUCTION (VACUUM) TO TRANSFER THE SLUDGE FROM ROLL-OFF BOX (BOX ON THE LEFT) TO THE VACUUM BOX (BOX BETWEEN ROLL-OFF BOX AND AIR MOVER).
- WE WILL BE SENDING THE SLUDGE (NON-HAZARDOUS) TO WASTE MANAGEMENT DISPOSAL FACILITY, SINCE REPUBLIC DID NOT RESPOND TO OUR REQUEST. WASTE MANAGEMENT WILL ONLY ACCEPT TWO VACUUM BOXES OF SLUDGE TODAY. SATURDAY CREW WILL LOAD ONE VACUUM BOX OF SLUDGE TO SEND ONE BOX FIRST THING MONDAY MORNING. ALSO, DEPENDING ON WHAT WAS DECIDED TO DO WITH THE BAY AREAS (FILL WITH DIRT), MAY WORK ON FILLING BAY AREAS ALSO ON SATURDAY. NOTE: WASTE MANAGEMENT DISPOSAL FACILITY IS LOCATED IN CONROE, TX. IT WAS ALSO DECIDED THAT THE HAZARDOUS SLUDGE THAT CONTAINS BENZENE IN THE NORTH CONTAINMENT AREA

~ Olga

12/13/10
Salvage

DEC 3, 2010 (FRIDAY) NOTES WRITTEN BY OIGA SALVAT
 WILL BE SENT TO U.S. ECOLOGY DISPOSAL
 FACILITY IN PLEASANTON, TX.

11:22 AM - SECOND VACUUM BOX ARRIVED ON SITE.

11:50 AM - FIRST VACUUM BOX LEFT SITE TO WASTE
 MANAGEMENT, IN CONROE, TX. SECOND VACUUM BOX
 IS BEING HOOKED UP AND SLUDGE IS BEING TRANSFERRED
 FROM ROLL-OFF BOX TO VACUUM BOX.

- 12:03 PM - TOOK LUNCH.

- 12:24 PM - TERRY CALLED AND SAID HE WAS AT USOR
 TO LOOK AT Sumps AT THE BAY AREAS.

- 12:39 PM - I ARRIVED BACK TO USOR.

TERRY WAS TALKING TO ADAM ABOUT THE Sumps
 IN THE BAY AREAS. TERRY WAS TELLING ADAM THAT
 IT'S A GOOD IDEA IF THEY JUST FENCE OFF THE
 BAY AREAS INSTEAD OF FILLING WITH DIRT. TERRY
 SUGGEST THAT BERMIS SHOULD BE OUTLINE THE BAY
 AREAS TO KEEP RAIN WATER OR OTHER RELEASE ENTERING
 THE BAY AREAS (SURFACE WATER). ADAM ALSO SAID HE
 COULD ALSO PUT A FENCE OVER THE BAY AREAS TO
 KEEP PEOPLE FROM FALLING INSIDE THE BAY AREAS.

- 1:07 PM - TERRY LEFT SITE.

- 1:30 PM - SECOND VACUUM BOX LEFT THE SITE TO
 SEND ^{1st} SLUDGE TO WASTE MANAGEMENT IN CONROE, TX.
 IT'S BEING ASSUMED THAT EACH VACUUM BOX
 HOLDS APPROXIMATELY 20 YARDS OF SLUDGE.

- 1:43 PM - PHOTO 4: PHOTO IS A SUMMONS IN A CIVIL
 ACTION BY THE UNITED STATES DISTRICT COURT FOR
 THE SOUTHERN DISTRICT OF TEXAS. PLAINTIFF IS CHARTIS
 SPECIALTY INSURANCE COMPANY VS DEFENDANT USOR.

- TOTAL OF 2 VACUUM BOXES OF SLUDGE WENT TO WASTE
 MANAGEMENT DISPOSAL FACILITY. ESTIMATED 15-20
 TONS OF SLUDGE SENT TO WASTE MANAGEMENT, BUT
 WE WILL WAIT FOR TARE WEIGHTS FROM WASTE MANAGEMENT.

Saline
 12/3/10

DEC 3, 2010 (FRIDAY) NOTES WRITTEN BY DEGA SALINAS
 - TOMORROW'S PLAN IS TO BRING AIR MOWER AND LOAD
 ONE VACUUM BOX OF SLUDGE FROM ROLL-OFF BOX, AND
 SET IT READY TO SHIP TO WASTE MANAGEMENT FIRST
 THING MONDAY MORNING. ALSO NEUTRALIZE SECONDARY
 CONTAINMENT WHERE THE ACID AND BASE TANKS ARE
 LOCATED. THERE IS A FEW LIQUIDS IN THE SECONDARY
 CONTAINMENT AREA (ACID/BASE CONTAINMENT AREA)
 WHERE PH IS LOW. WILL BE USING CAUSTIC FROM THE
 CAUSTIC TANK TO NEUTRALIZE THE LIQUIDS IN THE
 ACID/BASE CONTAINMENT AREA.
 - 2:45 PM - LEFT SITE

DEC 6, 2010 (MONDAY)

9:31 AM - ARRIVED AT SITE

ADAM NOT A SITE YET. STEPHANIE SAID THEY WORKED
 HALF A DAY ON SATURDAY AND THEY WERE OFF ON
 SUNDAY. THEY ALREADY SEND TWO VACUUM BOXES
 TO DISPOSAL FACILITY.

10:00 AM - LEFT SITE. TALKED TO TERRI AND SINCE WE
 ARE WAITING FOR THE THIRD VACUUM BOX, I WILL
 COME BACK THIS AFTERNOON.

1:50 PM - ARRIVED BACK TO USOR. ADAM WILL NOT
 BE IN TODAY. AIR MOWER GOT HERE LATE TODAY AND
 WE WON'T BE ABLE TO SEND VACUUM BOXES TO DISPOSAL
 FACILITY. DISPOSAL FACILITY WILL ONLY ACCEPT WASTE
 UNTIL 3 PM. BY THE TIME THE AIR MOWER TRANSFERS
 THE SLUDGE FROM THE ROLL-OFF BOXES TO THE VACUUM
 BOX AND DRIVERS TRAVEL TO CONROE TO DISPOSE
 OF THE SLUDGE IT WILL BE PAST 3 PM. SO NOW
 WE ARE ONLY GOING TO TRANSFER THE SLUDGE FROM
 ROLL-OFF BOX TO VACUUM BOX AND SEND THEM TO
 WASTE MANAGEMENT TOMORROW MORNING. I AM
 JUST WAITING TO SEE IF THEY ARE GOING TO

12/6/10
 Salinas

DEC 6, 2010 (MONDAY) NOTES WRITTEN BY OLGA SALINAS
 REMOVE SLUDGE FROM THE SOUTH SECONDARY
 CONTAINMENT AREA.

2:24pm - DAN FROM SHAW ENVIRONMENTAL WENT TO
 CAME BACK FROM CHECKING ON THE TRANSFERING OF
 THE SLUDGE. HE SAID THERE ARE ONLY 3 ROLL-OFF BOXES
 THEY USED TO STORE SLUDGE FROM BAYS 34-36. THEY
 PLAN TO FILL OUT THE TWO VACUUM BOXES TODAY,
 ONCE THEY FINISH EMPTY OUT THE ROLL-OFF BOXES
 THEY WILL START TRANSFERING THE SLUDGE FROM
 THE SECONDARY (SOUTH) CONTAINMENT AREA TO THE
 VACUUM BOX TODAY, IF THERE IS ANY SLOTT LEFT IN
 THE VACUUM BOX. THEY WILL BE USING THE AIR MOWER
 TO TRANSFER THE SLUDGE FROM THE SOUTH SECONDARY
 CONTAINMENT AREA TO VACUUM BOXES. IF SLUDGE
 IS TOO HARD AND AIR MOWER CANNOT TRANSFER SLUDGE,
 THEY WILL GET SOMEONE IN THERE TO USE SHOVEL TO
 REMOVE SLUDGE.

2:47pm - DAN CAME BACK FROM TALKING TO EARLE SWS
 AND SAID THEY WILL BE TRANSFERING THE SLUDGE FROM
 THE SOUTH SECONDARY CONTAINMENT AREA THIS AFTERNOON.

3:10 pm - LEFT SITE.

Salinas

DEC 7, 2010 (TUESDAY) NOTES WRITTEN BY OLGA SALINAS

-9:50am ARRIVED ON SITE. TOOK PHOTOS OF AIR MOWER
 VACUUMING SLUDGE FROM SOUTH SECONDARY CONTAINMENT
 AREA.

-10:02am - PHOTO 1 - PHOTO SHOWS AIR MOWER AND VACUUM
 BOX VACUUMING SLUDGE FROM SOUTH SECONDARY CONTAINMENT
 AREA. (PHOTO TAKEN FACING NORTH).

-10:03am - PHOTO 2 - PHOTO SHOWS WORKWAY TO WHERE
 A LUNCH HOSE IS USED TO VACUUM SLUDGE FROM THE SOUTH
 SECONDARY CONTAINMENT AREA TO VACUUM BOX (PHOTO
 FACING WEST).

Salinas

12/7/10

DEC 7, 2010 / TUESDAY / NOTES / WRITTEN BY OLGA SAUNAR

- 10:04am - Photo 3 - Photo Shows Air Mover And Vacuum Box Vacuuming Sludge From South Secondary Containment Area. (Photo Facing Southwest)
- Two Vacuum Boxes Already Left The Facility (USDR) This Morning To Waste Management In Conroe, TX. The Vacuum Box In Photos 1 And 3 Is The Third Box; That Will Be Going To Waste Management Today. Air Mover Is Doing Well Vacuuming The Sludge From The South Secondary Containment Area (No Problems).
- 10:22am - Another Vacuum Box Arrived Onsite. It Will Be The Fourth Box, If Eagle SWS Can Fill It Up Quickly. This Afternoon, Waste Management Will Not Accept Waste After 3pm. Air Mover Is Still Working On Filling The Third Box (Vacuum Box In Photos 1 & 3).
- 10:30am - Left Site, Will Come Back Later.
- 2:10pm - Arrived Back To USDR. Talked To Adam. Air Mover Is Still Working On The Same Vacuum Box. Air Mover Stopped Working Earlier, So The Air Mover Had To Be Re-Set And Took Awhile Before It Could Start Up Again. The First Two Vacuum Boxes That Left This Morning At 7:20am, Came Back From Waste Management (Empty) Ready To Be Re-used To Dispose Sludge. Adam Said They May Be Finish Disposing The Non-Hazardous Sludge From The South Secondary Containment Area, And Could Start To Fill One Vacuum Box Of Hazardous Waste From The North Containment Area. One Vacuum Box Will Be Sent To US Ecology Disposal Facility In Robstown, TX, To Get Analyzed. Once The Disposal Facility Says Its OK And They - (2)

TWO VACUUM BOXES ALREADY LEFT THE FACILITY (USDR). THIS MORNING TO WASTE MANAGEMENT IN CONROE, TX. THE VACUUM BOX IN PLOTS 1 AND 3 IS THE THIRD BOX; THAT WILL BE GOING TO WASTE MANAGEMENT TODAY. AIR MOVER IS DOING WELL VACUUMING THE SLUDGE FROM THE SOUTH SECONDARY CONTAINMENT AREA (NO PROBLEMS).

- 10:22 AM - ANOTHER VACUUM BOX ARRIVED ON SITE. IT WILL BE THE FOURTH BOX, IF EAGLE SWIS CAN FILL IT UP BY EARLY THIS AFTERNOON. WASTE MANAGEMENT WILL NOT ACCEPT WASTE AFTER 3pm. AIR MODEL IS STILL WORKING ON FILLING THE THIRD BOX (VACUUM BOX IN PHOTOS 1 & 3).

- 10:30pm - LEFT SITE, WILL COME BACK LATER

- 2:10 pm - Arrived BACK TO USIDE.

TALKED TO ADAM. AIR MOVER IS STILL WORKING ON THE SAME VACUUM BOX. AIR MOVER STOPPED WORKING EARLIER, SO THE AIR MOVER HAD TO BE RE-SET AND TOOK AWHILE BEFORE IT COULD START UP AGAIN. THE FIRST TWO VACUUM BOXES THAT LEFT THIS MORNING AT 7:30AM, CAME BACK FROM WASTE MANAGEMENT (EMPTY) READY TO BE REUSED TO DISPOSE SLUDGE. ADAM SAID THEY MAY BE FINISH DISPOSING THE NON-HAZARDOUS SLUDGE FROM THE SOUTH SECONDARY CONTAINMENT AREA, AND COULD START TO FILL ONE VACUUM BOX OF HAZARDOUS WASTE FROM THE NORTH CONTAINMENT AREA. ONE VACUUM BOX WILL BE SENT TO US ETCOLOGICAL DISPOSAL FACILITY IN ROBSTOWN, TX, TO GET ANALYZED ONCE THE DISPOSAL FACILITY SAYS ITS OK AND THEY -

Salinas
12/7/10

DEC 7, 2010 (TUESDAY) NOTES WRITTEN BY O. SALINAS
CAN TREAT IT, THEN WE CAN SEND THE REST OF
THE HAZARDOUS SLUDGE

- IN THE THIRD ROLL OFF BOX (SHOWN IN PHOTOS 1+3)
OILY LIQUID WAS PUMPED FROM BAY 48, WHEN AIR MOVIE
WAS DOWN (ACCORDING TO ADAM (SHAW)). ADAM SAID
ONCE THEY FINISH VACUUMING THE SLUDGE FROM THE
SOUTH CONTAINMENT AREA, THEY ARE GOING TO VACUUM
OILY LIQUIDS FROM BAYS 48 & 45. ONCE ALL THE LIQUIDS
ARE VACUUMED FROM BAYS 48 & 45, THEN THEY WILL
START LOADING (VACUUM) THE OILY SLUDGE (HAZARDOUS)
TO A VACUUM BOX TO SEND TO US ECOLOGY (IN
ROBSTOWN, TX) TO GET ANALYZED.

- 3:11pm - LEFT SITE.

Salinas

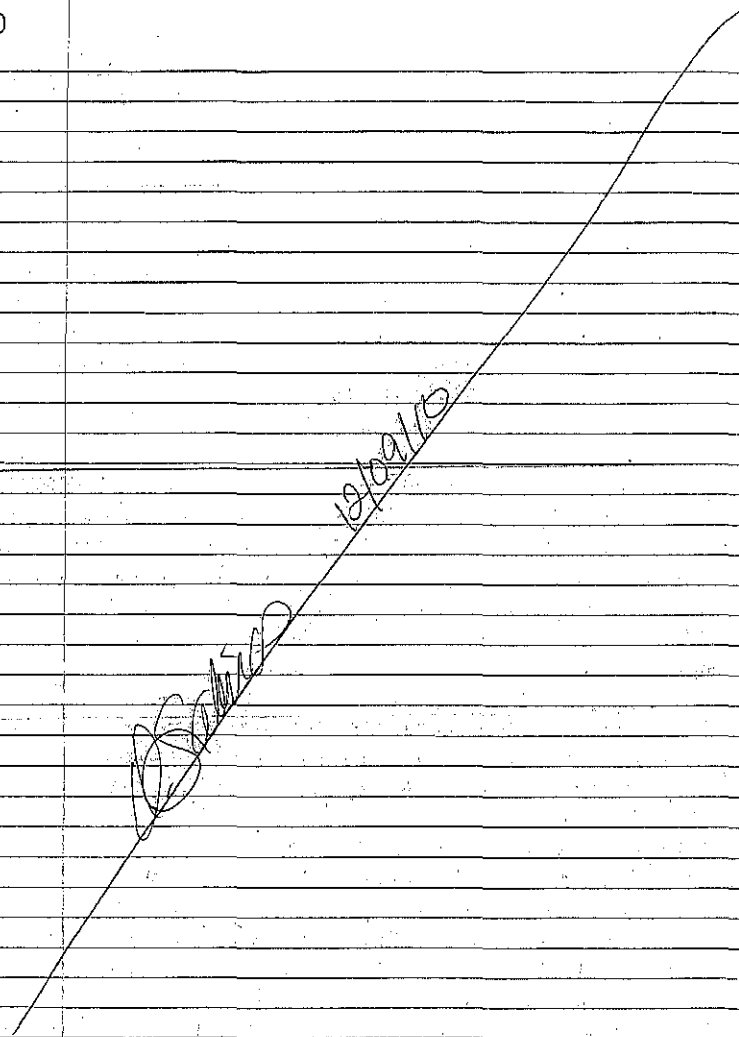
DEC 9, 2010 (THURSDAY) NOTES WRITTEN BY O. SALINAS

- YESTERDAY (DEC 8, 2010) I (O. SALINAS) WAS SICK.
- CALLED ADAM YESTERDAY (DEC 8, 2010) IN THE MORNING
TO GET AN UPDATE ON USOR STATUS. ADAM SAID THAT
THEY ARE VACUUMING THE SLUDGE FROM BAY 45 & 48
AND STILL WORKING ON THE SLUDGE IN THE SOUTH
SECONDARY CONTAINMENT AREA. ALSO THEY PLAN TO
FILL A VACUUM BOX WITH THE HAZARDOUS SLUDGE
IN THE NORTH CONTAINMENT AREA. THAT WAY THEY
WILL HAVE IT READY TO SHIP TO US ECOLOGY, INC
IN ROBSTOWN, TX.

- 10:32am - ARRIVED AT USOR.

TALKED TO ADAM. YESTERDAY THEY REMOVED ALL
THE OILY LIQUIDS FROM BAY 45 & 48 AND SLUDGE
FROM THE SOUTH SECONDARY CONTAINMENT AREA.
BAYS 45 & 48 AND EAST SIDE OF THE SOUTH
CONTAINMENT AREA HAS BEEN PRESSURE WASH.
THEY WERE NOT ABLE TO LOAD THE SLUDGE FROM
THE NORTH CONTAINMENT AREA, BECAUSE

Salinas



DEC 9, 2010 (THURSDAY) NOTES WRITTEN BY DEGA SAUNDAP
 THEY HAVE NOT RECEIVED APPROVAL FROM U.S. ECOLOGY, INC.
 THEY JUST RECEIVED APPROVAL FROM U.S. ECOLOGY, INC.
 THIS MORNING AT 6:00AM. THIS MORNING THEY
 MEASURED BENZENE AIR EMISSIONS FROM THE SLUDGE
 SLUDGE SURROUNDING TANK 19 (USING A BENZENE
 METER) AND FOUND AIR EMISSIONS OF BENZENE AT
 6ppm, THIS IS AT WHEN SLUDGE IS NOT TOUCHED.
 SINCE THE BENZENE LEVELS ARE AT 6ppm, IT IS
 HAZARDOUS, AND WORKERS DEALING WITH SLUDGE
 WILL BE IN LEVEL B PPE. WORKERS WILL HAVE TO BE
 IN THE NORTH CONTAINMENT AREA TO CONTROL THE
 HOSE FROM THE AREA AIR MOVER AND MAY NEED
 ADDITIONAL MEN TO GO IN THE NORTH CONTAINMENT
 AREA WITH SHOVELS TO GET THE SLUDGE THAT MAY
 BE HARD TO REMOVE. CURRENTLY, THEY ARE WAITING
 FOR AIR MOVER TO ARRIVE TODAY AND PREPARE WORKERS
 TO GET FITTED FOR LEVEL B PPE. ONCE AIR MOVER
 ARRIVES AND WORKERS HAVE ALL EQUIPMENT
 FOR LEVEL B PPE, THEY WILL START LOADING THE
 SLUDGE FROM THE NORTH CONTAINMENT AREA INTO
 A VACUUM BOX TODAY.

- 10:30 AM - LEFT SITE.
- ARRIVED BACK TO SITE AT 3:03 PM TO TAKE
 PHOTOS OF EAGLE SWIS IN NORTH SECONDARY
 CONTAINMENT AREA VACUUMING THE SLUDGE
 (NEXT TO TANK 19) IN LEVEL B PPE.
- 3:00 PM - PHOTO 1 - PHOTO SHOWS EAGLE SWIS STAFF
 IN THE NORTH SECONDARY CONTAINMENT AREA IN
 LEVEL B PPE VACUUMING THE SLUDGE WITH 6" HOSE
 USING AIR MOVER TO TRANSFER SLUDGE FROM NORTH
 CONTAINMENT AREA TO VACUUM BOX.

[Handwritten signature]

Salinas
12/09/10

DEC 9, 2010 (THURSDAY) NOTES WRITTEN BY O. SALINAS

3:06 pm - PHOTO 2: PHOTO SHOWS CREW ON THE LEFT USING VACUUM HOSE TO TRANSFER SLUDGE TO VACUUM BOX (ON THE RIGHT OF THE PHOTO BEHIND THE AIR DRYER).
3:07 pm - PHOTO 3: PHOTO SHOWS EAGLE SWS STAFF IN THE NORTH SECONDARY CONTAINMENT AREA USING VACUUM HOSE TO VACUUM SLUDGE.

3:20 pm - LEFT SITE.

DEC 10, 2010 (FRIDAY) NOTES WRITTEN BY O. SALINAS

10:25 AM - ARRIVED AT SITE (USEP)

CURRENTLY STAFF (EAGLE SWS) IS WORKING ON ITS THIRD VACUUM BOX OF HAZARDOUS SLUDGE FROM THE NORTH SECONDARY CONTAINMENT. ONE VACUUM BOX HAS ALREADY LEFT THE SITE AT 9:20 AM TO GO TO U.S. ECOLOGY, INC., IN ROBERTSON, TX. WE COULDN'T GET ANOTHER DRIVER TO SEND THE SECOND VACUUM BOX TO U.S. ECOLOGY, INC. THE SECOND VACUUM BOX WAS FILLED WITH SLUDGE BY 10:00 AM THIS MORNING. IT'S BELIEVED THAT ALL THE SLUDGE WILL BE VACUUMED FROM THE NORTH SECONDARY CONTAINMENT AREA BY THIS MORNING. ONCE ALL SLUDGE IS CLEANED OUT FROM THE NORTH SECONDARY CONTAINMENT AREA, THE SOUTH SECONDARY CONTAINMENT AREA WILL BE CLEANED. WORKERS WILL BE WORKING ON SATURDAY TO CONTINUE CLEANING THE SOUTH SECONDARY CONTAINMENT AREA AND BAY AREAS. NO DECISION HAS BEEN MADE ABOUT FURTHER SEALING BAYS 34-36.

11:13 PM - LEFT SITE.

Salinas 12/10/10

DEC 13, 2010 (MONDAY) NOTES WRITTEN BY DISA SALINAS

1:25pm - Arrived AT SITE

- TALKED TO ADAM ABOUT STATUS. CURRENTLY THEY HAD SENT A TOTAL OF 8 VACUUM BOXES OF NON-HAZARDOUS WASTE TO WASTE MANAGEMENT (IN CONDO) AND SENT 3 VACUUM BOXES OF HAZARDOUS WASTE TO U.S. ECOLOGY TOXIC. CURRENTLY CONTRACTORS ARE WORKING ON ITS FOURTH HAZARDOUS VACUUM BOX. IT HAS TAKEN SOMETIME TO COLLECT THE REMAINING SLUDGE IN THE NORTH CONTAINMENT AREA BECAUSE THE SLUDGE REMAINING ARE LOCATED NEXT TO PIPING, PUMPS AND OTHER EQUIPMENT INSIDE THE NORTH CONTAINMENT AREA. ADAM THINKS THEY WILL FINISH COLLECTING THE REMAINING SLUDGE IN THE NORTH CONTAINMENT AREA THIS AFTERNOON AND SENT THE VACUUM BOX TO U.S. ECOLOGY (ROBSTOWN, TX). BAYS 45 & 48 ARE CLEANED. IN THE FOLLOWING DAYS THE NORTH & SOUTH CONTAINMENT AREAS WILL BE PRESSURED WASHED. THE SOUTH CONTAINMENT AREA IS ALMOST CLEANED, BUT NEEDS MORE WORK. BAYS 34-36 WILL REMAIN AS IS, AND PLASTIC TOTES WILL BE PLACED INSIDE BAYS 34-36, TO MAKE SURE IF SOMEONE FALLS IN, THEY HAVE A WAY TO GET OUT. FENCE SURROUNDING BAYS 34-36 WILL REMAIN TO SECURE AREA.

1:55pm - LEFT SITE.

DEC 17, 2010 (FRIDAY) NOTES WRITTEN BY DISA SALINAS

- ARRIVED AT 8:30am (WROTE NOTES ON WALK)

8 - NON-HAZARDOUS SLUDGE (COMPLETE)

3 - HAZ SLUDGE (COMPLETE)

WASH WATER (IN PROCESS)

- WASHED OUT SOUTH & NORTH TANK FARM & 45 COMPLETE

DEC 17, 2010 (FRIDAY)

- SECURE Sump Area 34, 35 & 36
- SCRAPING FROM Sump Areas (IN PROCESS)
- REMOVE, COMBINE & NEUTRALIZE 38, 38 & 40 INTO 48 THRU VAC TRUCKS TO WASTE MANAGEMENT (WM)
- EVALUATE WAREHOUSE INVENTORY

DEC 15 (WED)

- 7:30 AM - TRUCK w/ VAC BOX TO WM (CONCRETE)
- 8:00 AM - SUPER-SUCKER LOAD VAC BOXES
- MON HAZ 45 & 48

CONTINUE WASHING SITE, PUMP WASH WATER INTO 36

LOAD VAC BOX w/ HAZ SLUDGE (N.T.F.)

DEC 9 (THURS)

TRUCK w/ VAC BOX TO WM (CONCRETE (MON HAZ))

8:00 - SUPER-SUCKER, LOAD BOXES w/ N.T.F. HAZ-SLUDGE WASH 45 & 48 (MONITOR REACTOR 2)

DEC 10, 2010 (FRI)

1 TRUCK w/ VAC BOXES TO U.S. ECOLOGY (ROBSTOWN, TX)

LOAD 2 VAC BOX w/ N.T.F. SLUDGE

DEC 11, 2010 (SAT)

PUMP N.T.F. SLUDGE

DEC 13, 2010 (MON)

2 LOADS OF HAZ TO U.S. ECOLOGY, PUMP N.T.F.

DEC 14, 2010 (TUES)

1 (LAST) LOAD TO U.S. ECOLOGY, WASH TANK FARM

WORK ON 38 & 40

DEC 15, 2010 (WED)

MUD TO INTER-GULF FROM 36

VAC-TRUCK PUMPING 40 INTO 48

WASHING SCRAP FROM SUMPS & COLLECTING

WASH IN 36 WORK 38 INTO 48,

DEC 16, 2010 (THURS)

NEUTRALIZE 48 & HUEL IN 40

LINE UP CONCRETE, WASH SCRAP

12/17/10
 O. S. Smith

PULL TANK OUT OF LOT.
 SCHEDULE LOADS FOR FRIDAY
 DEC 17, 2010 (FRI)

7:00 - VAC BOX SPOT

7:30 - AIR - MOVE IT

NOON - VAC BOX PICK-UP

2:00 pm - DELIVERY TO WASTE MANAGEMENT

1:00 pm ROLL-OFF ON SITE, LOAD & GO W/ PPE

TO WASTE MGMT (CONTAINER) DELIVERED BEFORE 4:00 pm

1:00 pm TRUCK TRUCK FOR LOAD TO INTER SITE

9:02 AM - LEFT SITE.

DEC 20, 2010 (MONDAY) NOTES WRITTEN BY DICK SAUNDERS

9:20 AM - ARRIVED ON SITE AND TALKED TO ADAM

CUREGGUTI. EAGLE SWIS IS VACUUMING THE REMAINING

NON-HAZ. SLUDGE FROM BAY AREAS AND THEY ALSO

GOING TO VACUUM THE REMAINING RAINWATER

FROM THE PARKING LOT. THE NORTH AND SOUTH SECONDARY

CONTAINMENT AREA HAS BEEN PRESSURED WASH

AND TANK HAS BEEN REMOVED AND CONCRETE WAS

POURED INTO THE ACID/CAUSTIC CONTAINMENT AREA

BECAUSE THE ACID WHICH WAS LEAKING FROM THE

ACID TANK ATE THROUGH THE CONCRETE, CONCRETE

WAS POURED IN THE ACID/CAUSTIC CONTAINMENT

ON SATURDAY (12/18/10).

AS OF DEC 17, 2010 9 VACUUM BOXES OF NON-

HAZARDOUS SLUDGE WASTE WAS REMOVED, 1 ROLL-OFF

BOX OF PPE, 4 VACUUM BOXES OF HAZARDOUS SLUDGE

FROM THE NORTH TANK FARM AND APPROXIMATELY

3,000 GALLONS OF NON-HAZARDOUS OILY LIQUID

FOR FUEL BLENDING/RECYCLING

CAME TO MEET TO DISCUSS AN INSPECTION

BEFORE EPA LEAVES AT NOON.

12/20/2010
 Salinas

DEC 20, 2010 (MON) NOTES WRITTEN BY DISA SALINAS
 - ADAM GAVE ME LOCK COMBINATION "4020" TO ENTER THE SITE, IF WE NEEDED ACCESS.

- 10:52 AM - TERRY ARRIVED ON SITE. TERRY AND I INSPECTED THE SITE. WE WALKED ALONG THE AREA BETWEEN THE OFFICE BUILDING AND ROLL-OFF BOXES IN THE PARKING LOT. SEVERAL BERMES WERE STILL LYING IN THE PARKING LOT SOILED WITH OIL/WATER. TERRY WANTS TO ASK ADAM IF THEY CAN REMOVE AND DISPOSE OF THE BERMES. WE THEN STARTED TO WALK TOWARDS BAYS 45+48, WHICH LOOKED CLEAN AND DRY. WE ALSO LOOKED AT BAYS 34-36 AND THEY WERE SECURED WITH SAFETY FENCE. THERE WERE NO SLUDGE IN BAYS 34-36, HOWEVER, THERE IS STILL FILM OF OIL ON THE SURFACE OF BAYS 34-36. WE ALSO LOOKED AT THE SOUTH CONTAINMENT AREA. THERE WERE NO OIL/WASTE OR SLUDGE. THERE IS STILL OIL FILM ON SURFACE OF THE CONTAINMENT AREA AND EQUIPMENT. WE WERE NOT ABLE TO INSPECT THE NORTH CONTAINMENT AREA, SINCE EAGLE SWS WERE PRESSURE WASHING THE AREA. WE ALSO WALKED INSIDE THE WAREHOUSE AND EVERYTHING IS CLEAN. WE LOOKED AT STORM WATER POND AND IT LOOKS THE SAME FROM THE LAST TIME WE SAW IT. WE ALSO DROVE TO MCC. WE LOOKED AT THE CL CHAMBER ("Z" CHAMBER), THE LIQUID LEVEL HAD DECREASED AND WE NOW CAN SEE A HOLE IN THE WEST CORNER OF THE CHAMBER. IT LOOKS LIKE THE LIQUID WASTE IS LEAKING FROM THE CHAMBER AND ENTERING THE SOIL FROM UNDER THE PAVEMENT. WE ALSO LOOKED AT THE CLARIFIERS, AERATION PANN AND THE SEDIMENT TANK (BOSTER) (DIGESTER), WHICH LOOKED THE SAME WHEN WE LAST INSPECTED MCC. WE WENT BACK TO USOR AND LEFT THE SITE AT 11:20 AM.

12/20/10
D. Salinas

DEC 20, 2010 (MON) NOTES WRITTEN BY OLGA SALINAS
- CALLED ADAM AT 5:20 PM AND ASKED IF THEY DISPOSE OF THE BERRIES NEXT TO THE ROLL-OFF BOXES IN THE PARKING LOT. HE SAID HE WILL GET THEM DISPOSED OF. THE EPA & CONTRACTORS WILL BE COMPLETE WITH THE CLEANUP THIS AFTERNOON AND WILL BE LEAVING THE SITE. TERRY AND I WILL BE COMPLETING AN INSPECTION OF THE SITE AND TAKE PHOTOS TOMORROW. WE ARE WAITING TO INSPECT THE SITE AND TAKE PHOTOS, BECAUSE CONTRACTORS ARE STILL CLEANING UP THE SITE.

DEC 21, 2010 (TUESDAY) NOTES WRITTEN BY OLGA SALINAS
- EPA AND CONTRACTORS LEFT THE SITE YESTERDAY, DEC 20, 2010 AT APPROX 4 PM. EMERGENCY CLEANUP IS COMPLETE.

- 9:33 AM - TERRY & OLGA ARRIVED AT THE SITE TO TAKE PHOTOS OF THE SITE AFTER EPA EMERGENCY RESPONSE CLEANED OUT OF ALL POSSIBLE THREATS.

9:35 AM - PHOTO 1: PHOTO WAS TAKEN FACING WEST, AT THE DRIVE WAY AND WAREHOUSE (INSIDE THE PROPERTY FENCE). PHOTO TAKEN BY D. SALINAS.

9:35 AM - PHOTO 2: PHOTO WAS TAKEN FACING NORTH, VIEWING THE FRONT SIDE OF THE OFFICE BUILDING AND COMPANY SIGN. PHOTO TAKEN BY D. SALINAS.

9:36 AM - PHOTO 3: PHOTO WAS TAKEN FACING WEST TOWARDS THE SOUTH END OF THE WAREHOUSE. PHOTO TAKEN BY D. SALINAS.

9:37 AM - PHOTO 4: PHOTO WAS TAKEN FACING NORTHWEST AT THE WAREHOUSE (CENTER OF THE WAREHOUSE) WHERE DRUMS AND TOTES CONTAINING CHEMICALS ARE TEMPORARILY STORED. PHOTO ALSO SHOWS ROLL-OFF BOXES CONTAINING HAZARDOUS WASTE NEXT TO WAREHOUSE. PHOTO TAKEN BY D. SALINAS.

9:37 AM - PHOTO 5: PHOTO WAS TAKEN FACING NORTH AT THE NORTH END OF THE WAREHOUSE. PHOTO SHOWS ROLL-OFF BOXES CONTAINING WASTE NEXT TO THE WAREHOUSE AND IN THE PARKING LOT. PHOTO TAKEN BY D. SALINAS.

12/10/10
 [Handwritten scribbles]

NEC 21, 2010 (TUESDAY) NOTES WRITTEN BY O. SPINAS

9:38am - PHOTO 6: PHOTO TAKEN FACING SOUTHEAST TOWARDS THE SOUTH SIDE OF THE FACILITY. PHOTO SHOWS ROLL-OFF BOXES CONTAINING WASTE LOCATED IN THE SOUTH END OF SITE'S PROPERTY. PHOTO TAKEN BY T. ANDREWS.

9:38am - PHOTO 7: PHOTO TAKEN FACING SOUTH. PHOTO SHOWS ROLL-OFF BOXES CONTAINING WASTE LOCATED SOUTH OF THE SITE'S PROPERTY. PHOTO TAKEN BY T. ANDREWS.

9:38am - PHOTO 8: PHOTO TAKEN FACING SOUTHWEST, OF THE TOWARDS THE SOUTH END OF THE PROPERTY. PHOTO SHOWS MORE ROLL-OFF BOXES CONTAINING WASTE LOCATED ON THE SOUTH END OF THE PROPERTY. PHOTO TAKEN BY T. ANDREWS.

9:39am - PHOTO 9: PHOTO TAKEN FACING NORTH TOWARDS THE PARKING LOT. PHOTO SHOWS LOCATION WHERE RUN OFF (RAIN) FROM THE PARKING LOT RUNS OFF TO THE DRIVEWAY. PHOTO TAKEN BY O. SPINAS.

9:39am - PHOTO 10: PHOTO TAKEN FACING NORTH TOWARDS THE PARKING LOT. PHOTO SHOWS LOCATION WHERE RAIN WOULD RUN OFF FROM THE PARKING LOT TO THE DRIVEWAY. (SAME PHOTO AS PHOTO 9, EXCEPT SHOWING MORE OF THE DRIVEWAY) PHOTO TAKEN BY O. SPINAS.

9:40am - PHOTO 11: PHOTO TAKEN FACING NORTH TOWARDS THE SOUTH END OF THE WAREHOUSE. PHOTO SHOWS VACUUM HOSES LEFT ON SITE ON THE EAST SIDE OF THE WAREHOUSE (BUT SOUTHWEST). PHOTO TAKEN BY O. SPINAS.

9:41am - PHOTO 12: PHOTO TAKEN FACING NORTHEAST OF THE FACILITY, VIEWING THE PARKING LOT WHICH HAS MORE ROLL-OFF BOXES CONTAINING WASTE. PHOTO TAKEN BY O. SPINAS.

9:42am - PHOTO 13: PHOTO TAKEN FACING SLIGHTLY NORTHEAST VIEWING THE ROLL-OFF BOXES BEING STORED NEXT TO THE WAREHOUSE. ROLL-OFF BOXES ARE LABELED WITH "HAZARDOUS WASTE OCT-09". ROLL-OFF BOXES HAVE BEEN ON SITE SINCE OCT-09. PHOTO TAKEN BY O. SPINAS

[Handwritten signature]

12/21/10
 Salinas

DEC 21, 2010 (TUES) NOTES WRITTEN BY D. SALINAS

9:42 AM - PHOTO 14: PHOTO TAKEN FACING EAST AT THE ROLL-OFF BOXES PARKED IN THE PARKING LOT NEXT TO OFFICE BUILDING. PHOTO SHOWS DEBRIS (DIRT) ON THE PARKING LOT BETWEEN ROLL-OFF BOXES. PHOTO TAKEN BY D. SALINAS.

9:43 AM - PHOTO 15: PHOTO TAKEN FACING SOUTH AT THE PARKING LOT. PHOTO SHOWS ROLL-OFF BOXES AND REMAINING RAIN WATER IN THE PARKING LOT AREA. PHOTO TAKEN BY D. SALINAS.

9:43 AM - PHOTO 16: PHOTO TAKEN FACING WEST TOWARDS THE WAREHOUSE (NORTH END OF DRAINAGE HOUSE). PHOTO SHOWS MORE ROLL-OFF BOXES WITH WASTE AND A SAND DUST PILE. PHOTO TAKEN BY D. SALINAS.

9:44 AM - PHOTO 17: PHOTO TAKEN FACING SLIGHTLY NORTHWEST TOWARDS THE BAY AREAS (BAYS 45, 48, 34, 35 AND 36). PHOTO TAKEN BY T. ANDREWS.

9:45 AM - PHOTO 18: PHOTO TAKEN FACING WEST TOWARDS BAYS 45 AND 48. PHOTO TAKEN BY T. ANDREWS.

9:45 AM - PHOTO 19: PHOTO TAKEN FACING WEST. PHOTO SHOWS (FROM LEFT TO RIGHT) BAY 48 (ON THE LEFT), ACID/CAUSTIC CONTAINMENT AREA (IN THE CENTER) AND BAY 34 (ON THE RIGHT). PHOTO TAKEN BY T. ANDREWS.

9:45 AM - PHOTO 20: PHOTO TAKEN FACING NORTHWEST. PHOTO SHOWS BAYS 34, 35 AND 36 SECURED WITH SAFETY FENCE WITH ORANGE SAFETY NET. PHOTO TAKEN BY T. ANDREWS.

9:46 AM - PHOTO 21: PHOTO TAKEN FACING NORTH. PHOTO SHOWS ACID CONTAINMENT AREA. ACID TANK (T-40) WAS REMOVED SINCE IT WAS LEAKING AND DAMAGED THE CONCRETE CONTAINMENT AREA. EPA HAD CONTRACTORS COME IN ON DEC 18, 2010 TO POUR NEW CONCRETE IN THE ACID CONTAINMENT AREA. PHOTO TAKEN BY T. ANDREWS.

9:46 AM - PHOTO 22: PHOTO TAKEN FACING SOUTH, INSIDE BAYS 45 AND 48. PHOTO TAKEN BY T. ANDREWS.

D. Salinas

O. Salinas
 2/18/10

NEC 21.2 AND (TUESDAY) NOTES WRITTEN BY O. SALINAS

9:46 AM - PHOTO 23: PHOTO WAS TAKEN FACING SOUTH, VIEWING THE BACK WALL OF BAY 48 AND SUMP AREA OF BAY 48. PHOTO TAKEN BY T. ANNEWS.

9:47 AM - PHOTO 24: PHOTO WAS TAKEN FACING NORTH, VIEWING THE SOUTH SECONDARY TANK CONTAINMENT AREA. THIS PHOTO VIEWS THE SOUTH CONTAINMENT AREA BEHIND (WEST) OF THE ACID/CAUSTIC CONTAINMENT AREA. PHOTO TAKEN BY T. ANNEWS.

9:47 AM - PHOTO 25: PHOTO WAS TAKEN FACING NORTH, VIEWING THE SOUTH SECONDARY CONTAINMENT AREA. PHOTO VIEWS AREA WEST OF PHOTO 24. PHOTO TAKEN BY T. ANNEWS.

9:48 AM - PHOTO 26: PHOTO WAS TAKEN FACING NORTH, VIEWING THE SOUTH SECONDARY CONTAINMENT AREA (WEST OF PHOTO 25) VIEWING UNIT B59 WHICH IS A HORIZONTAL TANK. PHOTO TAKEN BY O. SALINAS.

9:48 AM - PHOTO 27: PHOTO WAS TAKEN FACING NORTH, VIEWING THE WEST END OF THE SOUTH SECONDARY CONTAINMENT AREA (WEST OF PHOTO 26) VIEWING TANKS B29, T-30 AND AST (B-1).

AST (AROMATIC STORAGE TANK) IS IN THE NORTH TANK FARM, BUT IS SHOWN IN THIS PHOTO IN THE BACKGROUND. SEE PLOT PLAN SUBMITTED WITH INITIAL PERMIT APPLICATION DATED FEB 5, 2007.

ACCA WILL BE STABLED WITH THIS NOTE BOOK. PHOTO TAKEN BY O. SALINAS.

9:48 AM - PHOTO 28: PHOTO WAS TAKEN FACING SOUTHEAST VIEWING T-37 ON THE PLOT PLAN. PHOTO TAKEN BY O. SALINAS.

9:48 AM - PHOTO 29: PHOTO WAS TAKEN FACING SOUTHEAST VIEWING THE EAST SIDE OF T-37 IN THE CONTAINMENT AREA. VACUUM HOSES WERE LEFT INSIDE THIS CONTAINMENT AREA BY CONTRACTORS. PHOTO TAKEN BY O. SALINAS.

9:49 AM - PHOTO 30: PHOTO WAS TAKEN FACING WEST VIEWING WALKWAY BETWEEN ACID/CAUSTIC CONTAINMENT AREA AND BAY 48. PHOTO TAKEN BY O. SALINAS.

9:50 AM - PHOTO 31: PHOTO WAS TAKEN FACING WEST VIEWING BAYS 34, 35 & 36. PHOTO SHOWS BAYS 34-36 ARE SECURED WITH SAFETY FENCE AND ORANGE SAFETY NET. PHOTO TAKEN BY O. SALINAS.

10/12/10

NEC 21,000 (TUESDAY) NOTES WRITTEN BY D SALINAS

9:50am - PHOTO 32: PHOTO WAS TAKEN FACING NORTH VIEWING BAY 36. PHOTO TAKEN BY T. ANDREWS.

9:50am - PHOTO 33: PHOTO WAS TAKEN FACING NORTHWEST VIEWING BAY 34. PHOTO TAKEN BY T. ANDREWS.

9:50am - PHOTO 34: PHOTO WAS TAKEN FACING WEST VIEWING THE NORTHEAST CORNER OF BAY 36. PHOTO TAKEN BY T. ANDREWS.

9:52am - PHOTO 35: PHOTO WAS TAKEN FACING WEST VIEWING BAY ON THE PLOT PLAN WHICH LOOKS LIKE A TRUCK LOADING DOCK. PHOTO TAKEN BY D. SALINAS.

9:52am - PHOTO 36: PHOTO WAS TAKEN FACING NORTH VIEWING THE NORTHEAST CORNER OF THE NORTH TANK FARM SECONDARY CONTAINMENT AREA. PHOTO TAKEN BY T. ANDREWS.

9:52am - PHOTO 37: PHOTO WAS TAKEN FACING WEST VIEWING THE NORTH TANK FARM SECONDARY CONTAINMENT AREA. PHOTO TAKEN BY T. ANDREWS.

9:53am - PHOTO 38: PHOTO WAS TAKEN FACING WEST VIEWING THE NORTH TANK FARM SECONDARY CONTAINMENT AREA. PHOTO TAKEN BY T. ANDREWS.

9:53am - PHOTO 39: PHOTO WAS TAKEN VIEWING ONE OF THE TANKS IN THE NORTH TANK FARM SECONDARY CONTAINMENT AREA STILL LEAKING DILY LIQUID. PHOTO TAKEN BY T. ANDREWS.

9:53am - PHOTO 40: PHOTO WAS TAKEN FACING WEST VIEWING ANOTHER SECTION OF THE NORTH TANK FARM SECONDARY CONTAINMENT AREA. PHOTO TAKEN BY T. ANDREWS.

9:54am - PHOTO 41: PHOTO WAS TAKEN FACING SOUTH VIEWING BAY 34 (TOP OF PHOTO) AND BAY 35 (BOTTOM OF PHOTO). PHOTO TAKEN BY T. ANDREWS.

9:54am - PHOTO 42: PHOTO WAS TAKEN FACING WEST VIEWING THE SOUTHWEST SECTION (CORNER) OF THE NORTH TANK FARM SECONDARY CONTAINMENT AREA. PHOTO TAKEN BY T. ANDREWS.

9:54am - PHOTO 43: PHOTO WAS TAKEN FACING SOUTH VIEWING BAY 36. PHOTO TAKEN BY T. ANDREWS.

D Salinas

18/11/10
 O. Salinas

DEC 21, 2010 (TUESDAY) NOTES WRITTEN BY O. SALINAS

9:50 AM - PHOTO 44: PHOTO TAKEN FACING WEST VIEWING THE NORTH WALL OF THE NORTH TANK FARM CONTAINMENT AREA.

PHOTO TAKEN BY T. ANDREWS.

9:50 AM - PHOTO 45: PHOTO TAKEN FACING SOUTH, LOOKING DOWN INTO THE CONTAINMENT AREA WHERE THE SLURRY DRYER IS LOCATED (D-25). PHOTO TAKEN BY T. ANDREWS.

9:51 AM - PHOTO 46: PHOTO TAKEN FACING SLIGHTLY SOUTHWEST AT THE NORTH EAST CORNER OF THE NORTH TANK FARM CONTAINMENT AREA. PHOTO TAKEN BY T. ANDREWS.

9:51 AM - PHOTO 47: PHOTO TAKEN FACING SOUTHEAST, VIEWING THE WEST SIDE OF THE NORTH TANK FARM. PHOTO TAKEN BY T. ANDREWS.

9:58 AM - PHOTO 48: PHOTO TAKEN FACING SOUTH, VIEWING THE WEST SIDE OF THE NORTH TANK FARM AND WAREHOUSE. PHOTO TAKEN BY T. ANDREWS.

9:59 AM - PHOTO 49: PHOTO TAKEN FACING WEST ON THE NORTH SIDE OF THE BASINS (T-63 & T-64). PHOTO SHOWS ONLY LIQUID LEAKING OUT FROM THE BASINS. SITE HAS NOT RECEIVED RAIN IN WEEKS. PHOTO TAKEN BY O. SALINAS.

9:59 AM - PHOTO 50: PHOTO TAKEN FACING SOUTH AT THE BOTTOM OF THE BASIN CONTAINMENT WALL. PHOTO SHOWS ONLY LIQUID LEAKING FROM THE BASIN (T-63 & T-64) CONTAINMENT AREA. PHOTO TAKEN BY O. SALINAS.

10:01 AM - PHOTO 51: PHOTO TAKEN FACING EAST, VIEWING THE NORTH WALL OF THE BASINS (T-63 & T-64). PHOTO SHOWS LIQUID INSIDE THE BASIN PERSPIRING THRU THE WALL. PHOTO TAKEN BY O. SALINAS. WET LINE IS APPROX 1/4 THE WALL.

10:01 AM - PHOTO 52: PHOTO TAKEN FACING SOUTH, VIEWING THE WEST WALL OF THE BASIN T-64. PHOTO TAKEN BY O. SALINAS.

10:01 AM - PHOTO 53: PHOTO TAKEN FACING EAST, VIEWING THE NORTH WEST CORNER OF THE BASIN DOWN THE CONTAINMENT AREA WHICH IS FILLED WITH OILY LIQUID. TOP OF PHOTO SHOWS OILY LIQUID LEAKING FROM CONTAINMENT AREA. O. Salinas

10:03 AM
10:04 AM
10:05 AM
10:06 AM
10:07 AM
10:08 AM
10:09 AM
10:10 AM
10:11 AM
10:12 AM
10:13 AM
10:14 AM
10:15 AM
10:16 AM
10:17 AM
10:18 AM
10:19 AM
10:20 AM
10:21 AM
10:22 AM
10:23 AM
10:24 AM
10:25 AM
10:26 AM
10:27 AM
10:28 AM
10:29 AM
10:30 AM
10:31 AM
10:32 AM
10:33 AM
10:34 AM
10:35 AM
10:36 AM
10:37 AM
10:38 AM
10:39 AM
10:40 AM
10:41 AM
10:42 AM
10:43 AM
10:44 AM
10:45 AM
10:46 AM
10:47 AM
10:48 AM
10:49 AM
10:50 AM
10:51 AM
10:52 AM
10:53 AM
10:54 AM
10:55 AM
10:56 AM
10:57 AM
10:58 AM
10:59 AM
11:00 AM

DEC 21, 2010 (TUESDAY) NOTES (WRITTEN) BY D. SALINAS

10:03 AM - PHOTO 54: PHOTO TAKEN FACING NORTH, VIEWING BASIN T-64. PHOTO TAKEN BY D. SALINAS.

10:03 AM - PHOTO 55: PHOTO TAKEN FACING NORTH, VIEWING INSIDE (TOP) BASIN T-63. PHOTO TAKEN BY D. SALINAS.

10:04 AM - PHOTO 56: PHOTO TAKEN FACING NORTH, VIEWING BOTH BASINS T-63 & T-64 (BASIN T-64 ON RIGHT AND BASIN T-63 ON LEFT). PHOTO TAKEN BY D. SALINAS.

10:04 AM - PHOTO 57: PHOTO TAKEN FACING NORTH EAST, VIEWING THE NORTH TANK FARM. PHOTO TAKEN BY T. ANDREWS.

10:04 AM - PHOTO 58: PHOTO TAKEN FACING EAST, VIEWING THE SECONDARY SOUTH SECONDARY CONTAINMENT AREA. PHOTO TAKEN BY T. ANDREWS.

10:05 AM - PHOTO 59: PHOTO TAKEN FACING SOUTH, VIEWING THE WEST SIDE OF THE WAREHOUSE AND STORMWATER POND. PHOTO TAKEN BY T. ANDREWS.

10:05 AM - PHOTO 60: PHOTO SHOW WHITE FILM INSIDE BASIN T-63. PHOTO TAKEN BY T. ANDREWS.

10:05 AM - PHOTO 61: PHOTO TAKEN FACING NORTH, VIEWING INSIDE BASIN T-63. PHOTO TAKEN BY T. ANDREWS.

10:05 AM - PHOTO 62: PHOTO TAKEN FACING NORTHWEST AT BASIN T-64. PHOTO TAKEN BY T. ANDREWS.

10:06 AM - PHOTO 63: PHOTO TAKEN FACING SOUTH, VIEWING SOUTHWEST SIDE OF THE PROPERTY. PHOTO SHOWS ROLL-OFF BOXES WITH WASTE STORED IN THIS AREA. PHOTO TAKEN BY T. ANDREWS.

10:07 AM - PHOTO 64: PHOTO TAKEN FACING NORTH, VIEWING ROLL OFF BOXES STORED BETWEEN BASINS (T-63 & T-64) AND NORTH TANK FARM. PHOTO TAKEN BY T. ANDREWS.

10:08 AM - PHOTO 65: PHOTO TAKEN FACING SOUTH, VIEWING THE WEST SIDE OF THE WAREHOUSE AND STORMWATER POND. PHOTO TAKEN BY T. ANDREWS.

10:09 AM
10:10 AM
10:11 AM
10:12 AM
10:13 AM
10:14 AM
10:15 AM
10:16 AM
10:17 AM
10:18 AM
10:19 AM
10:20 AM
10:21 AM
10:22 AM
10:23 AM
10:24 AM
10:25 AM
10:26 AM
10:27 AM
10:28 AM
10:29 AM
10:30 AM
10:31 AM
10:32 AM
10:33 AM
10:34 AM
10:35 AM
10:36 AM
10:37 AM
10:38 AM
10:39 AM
10:40 AM
10:41 AM
10:42 AM
10:43 AM
10:44 AM
10:45 AM
10:46 AM
10:47 AM
10:48 AM
10:49 AM
10:50 AM
10:51 AM
10:52 AM
10:53 AM
10:54 AM
10:55 AM
10:56 AM
10:57 AM
10:58 AM
10:59 AM
11:00 AM

Salinas
~~12/21/10~~

DEC 21, 2010 (TUESDAY) NOTES WRITTEN BY D. SALINAS

10:08 AM - PHOTO 66: PHOTO TAKEN FACING EAST FROM INSIDE THE WAREHOUSE. PHOTO SHOWS TOTES STORED IN THIS AREA. PHOTO TAKEN BY T. ANDREWS.

10:08 AM - PHOTO 67: PHOTO TAKEN FACING WEST VIEWING THE NORTH SIDE OF THE STORM WATER POND. PHOTO TAKEN BY T. ANDREWS.

10:08 AM - PHOTO 68: PHOTO TAKEN FACING SOUTHWEST VIEWING THE STORM WATER POND. PHOTO TAKEN BY T. ANDREWS.

10:09 AM - PHOTO 69: PHOTO TAKEN FACING WEST FROM INSIDE THE WAREHOUSE. THIS AREA OF THE WAREHOUSE MAY BE THE BOILER ROOM. PHOTO SHOWS DRUMS AND CONTAINERS. PHOTO TAKEN BY T. ANDREWS.

10:09 AM - PHOTO 70: PHOTO TAKEN FACING WEST VIEWING THE CONTAINER STORAGE AREA INSIDE THE WAREHOUSE. PHOTO SHOWS "CONTAINMENT A- POTENTIAL OXIDIZERS". PHOTO TAKEN BY T. ANDREWS.

10:10 AM - PHOTO 71: PHOTO SHOWS TOTES IN WAREHOUSE AND SPILL STAINS ON FLOOR. PHOTO TAKEN BY T. ANDREWS.

10:10 AM - PHOTO 72: PHOTO SHOWS MORE TOTES IN THE WAREHOUSE WITH SPILL STAINS ON FLOOR. PHOTO TAKEN BY T. ANDREWS.

10:10 AM - PHOTO 73: PHOTO SHOWS TOTES IN WAREHOUSE WITH SPILL STAINS ON THE FLOOR. PHOTO TAKEN BY T. ANDREWS.

10:10 AM - PHOTO 74: PHOTO TAKEN FACING EAST INSIDE THE WAREHOUSE. PHOTO SHOWS DRUMS CONTAINING CHEMICALS. PHOTO TAKEN BY T. ANDREWS.

10:11 AM - PHOTO 75: PHOTO TAKEN FACING WEST INSIDE THE WAREHOUSE. PHOTO SHOWS TOTES CONTAINING CHEMICALS. PHOTO TAKEN BY T. ANDREWS.

10:11 AM - PHOTO 76: PHOTO TAKEN FACING WEST FROM INSIDE THE WAREHOUSE. PHOTO SHOWS PLASTIC CONTAINERS CONTAINING CHEMICALS. PHOTO TAKEN BY T. ANDREWS.

10:11 AM - PHOTO 77: PHOTO TAKEN FACING NORTHEAST FROM INSIDE THE WAREHOUSE. PHOTO SHOWS MORE PLASTIC CONTAINERS CONTAINING CHEMICALS. PHOTO TAKEN BY T. ANDREWS.

Salinas

21/12/10

DEC 21, 2010 (TUESDAY) NOTES WRITTEN BY D. SALINAS
10:11 AM - PHOTO TR: PHOTO TAKEN FACING WEST, VIEWING
THE DRIVEWAY TO THE ENTRANCE OF THE FACILITY.
PHOTO TAKEN BY D. SALINAS.
10:19 AM - LEFT SITE

D. Salinas

PHOTOGRAPHS TAKEN ON NOVEMBER 9, 2010

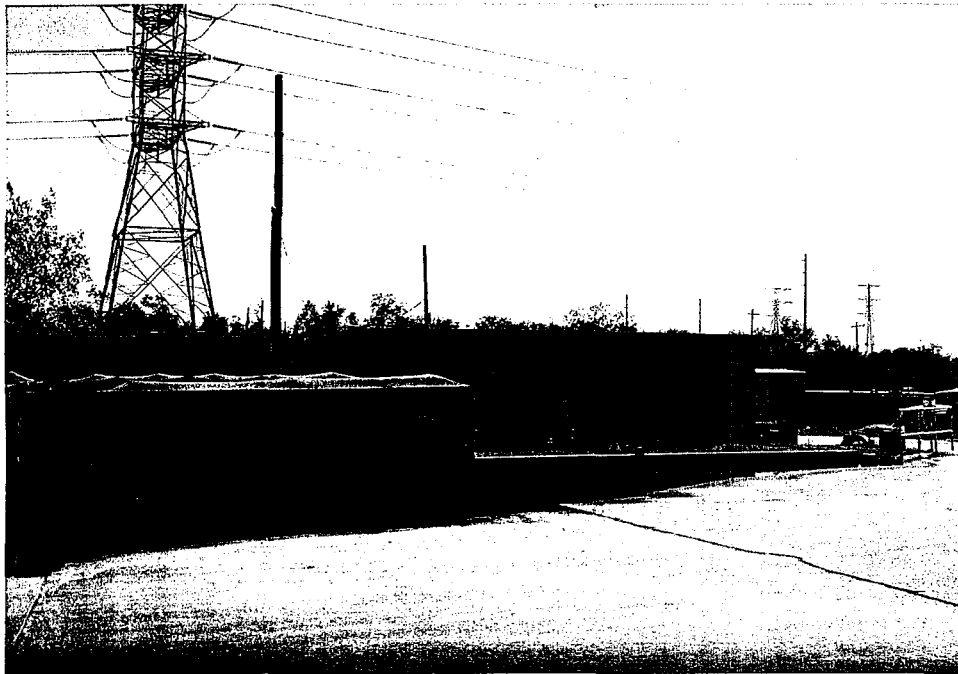


PHOTO #2

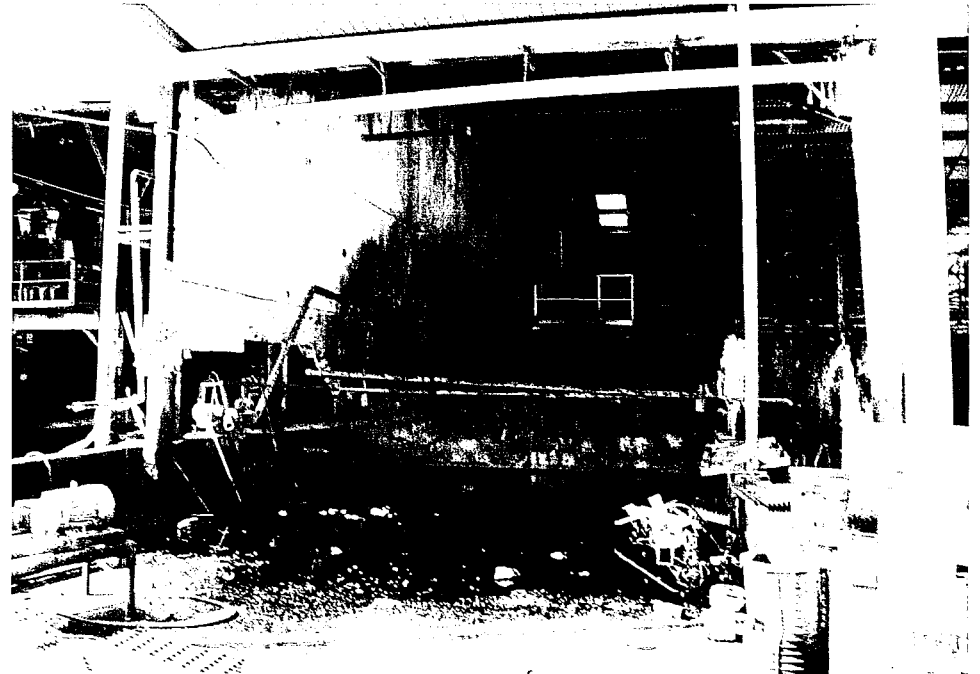


PHOTO #4

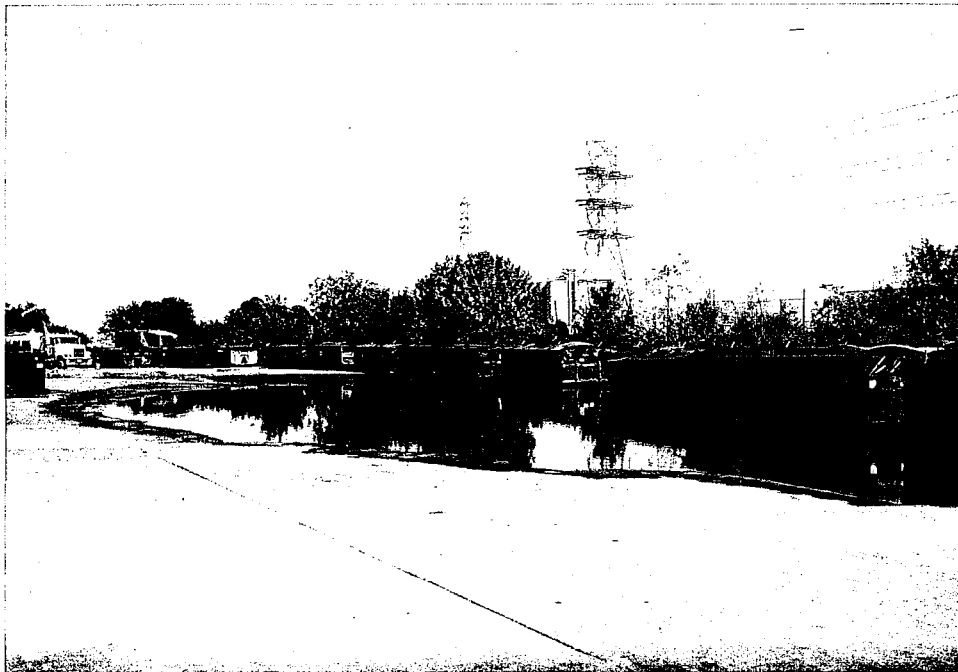


PHOTO #1

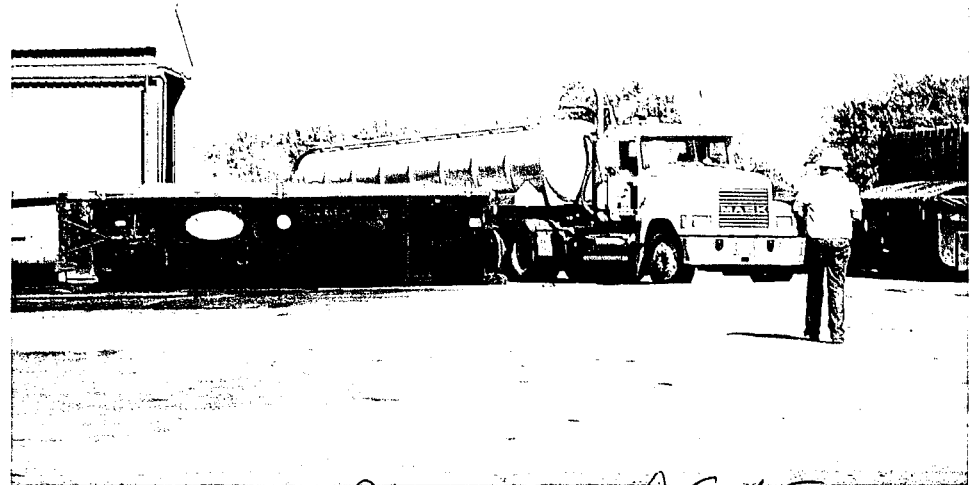
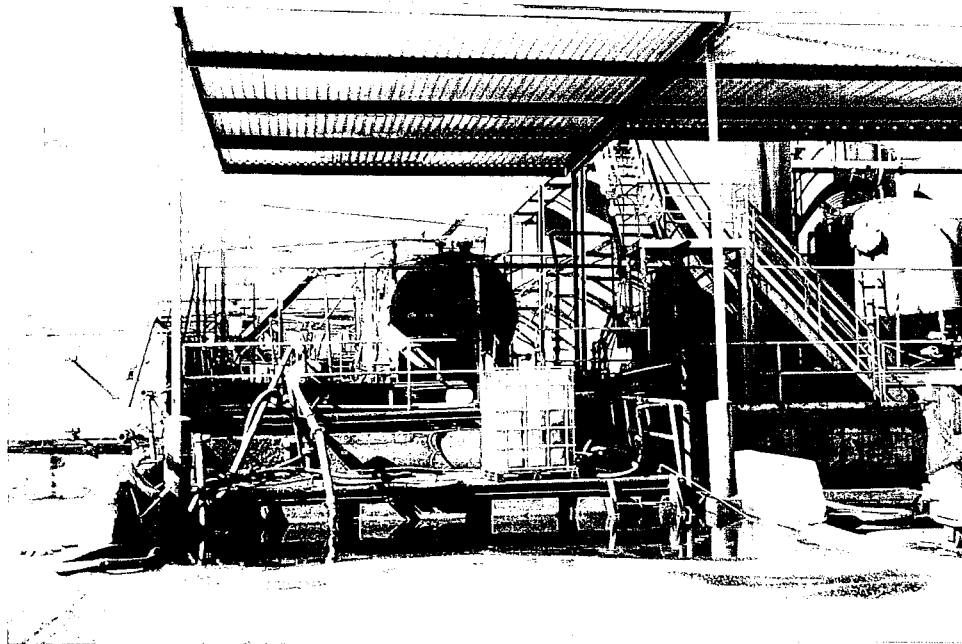


PHOTO #3 *Salinas*

PHOTOGRAPHS TAKEN ON NOVEMBER 9, 2010



PHOTO#6



PHOTO#8



PHOTO#5



PHOTO#7

Salmon 52

PHOTOGRAPHS TAKEN ON NOVEMBER 9, 2010



PHOTO #10

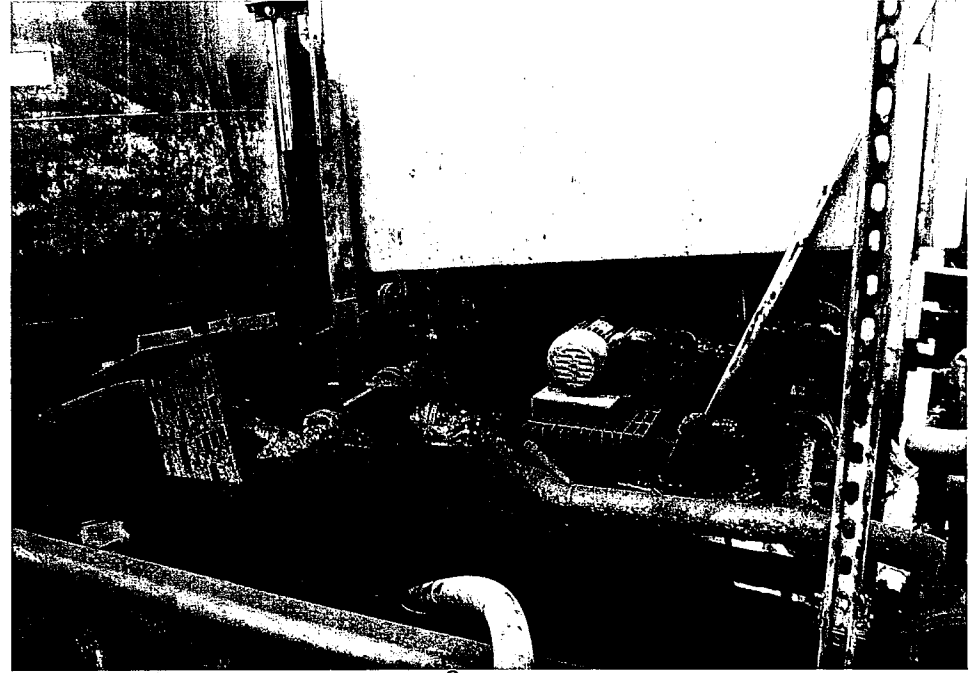


PHOTO #12

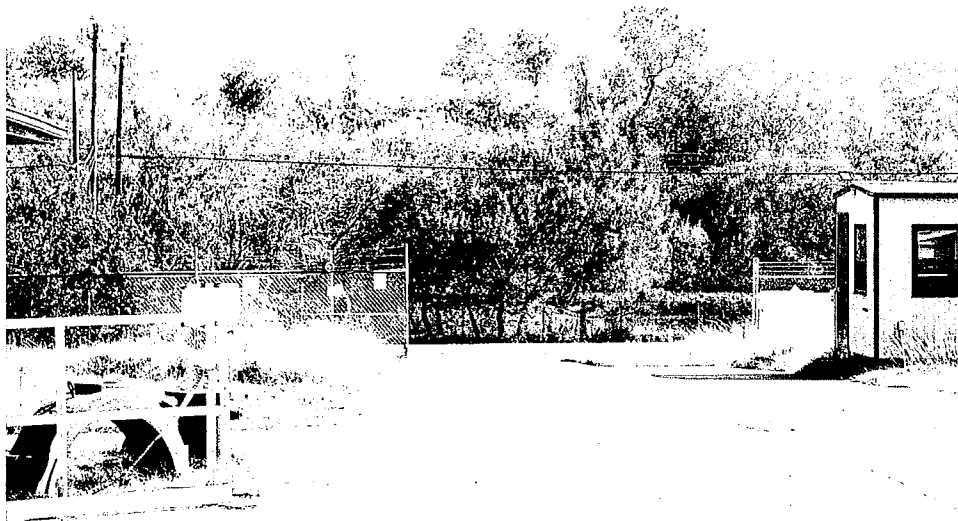


PHOTO #9



PHOTO #11

Salinas 53

PHOTOGRAPHS TAKEN ON NOVEMBER 9, 2010



PHOTO #14

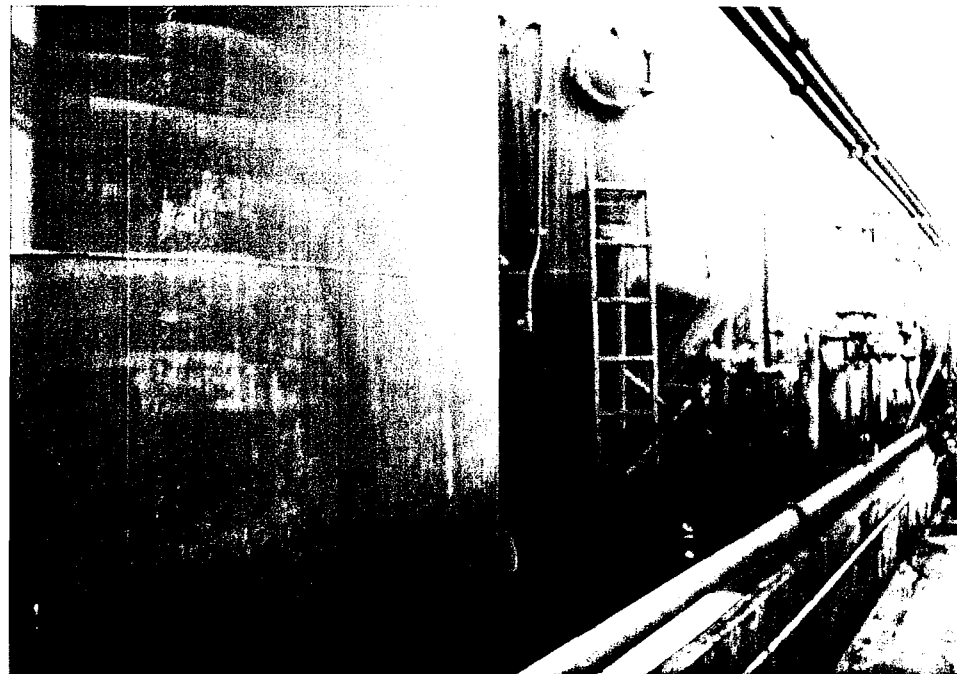


PHOTO #16

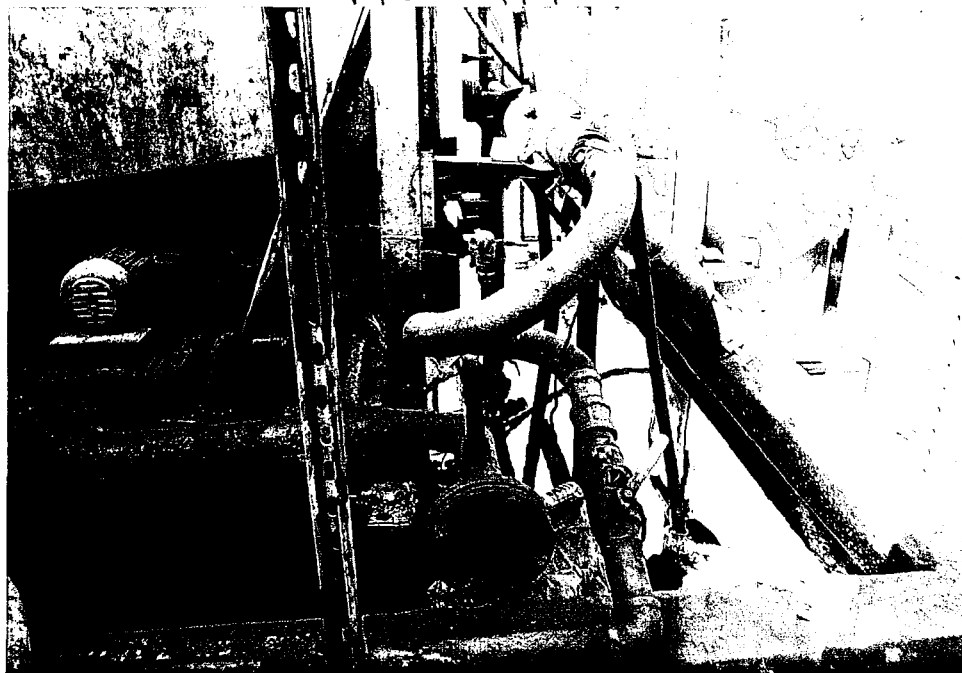


PHOTO #13

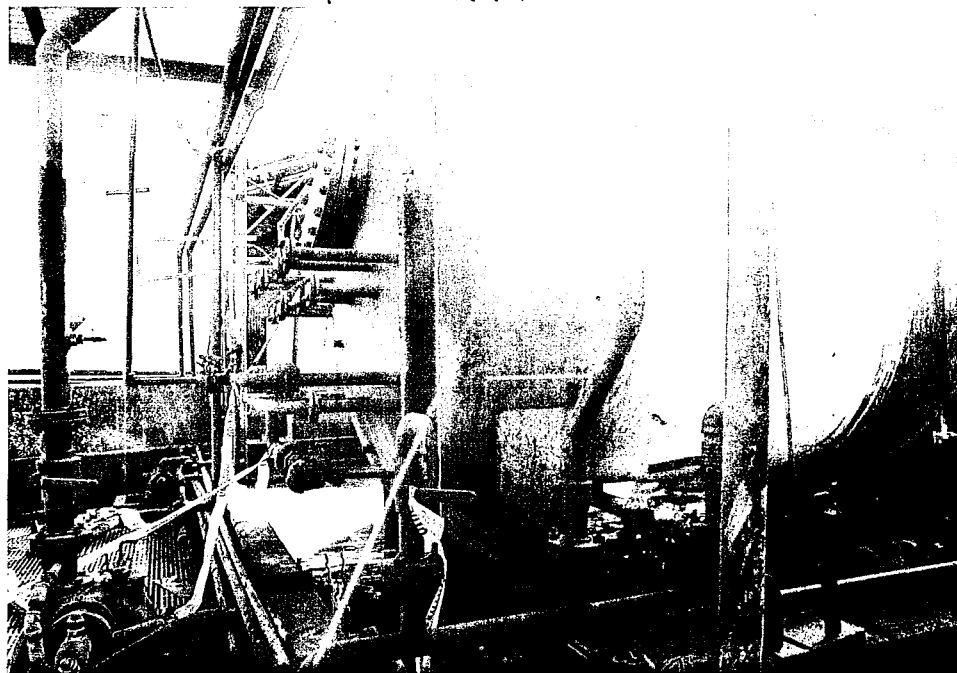


PHOTO #15

Salas

PHOTOGRAPHS TAKEN ON NOVEMBER 9, 2010



PHOTO #18

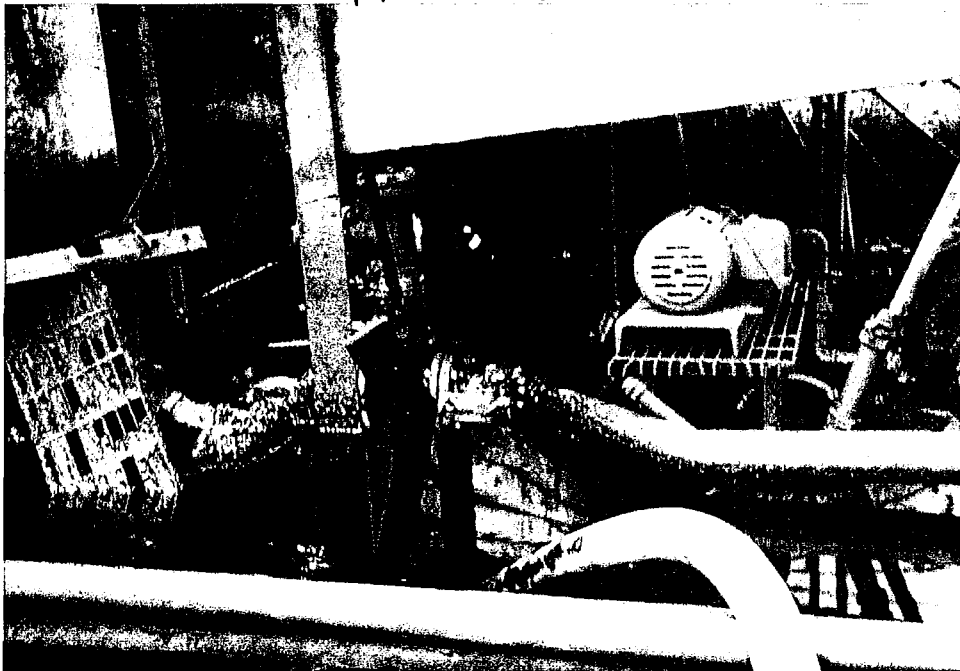


PHOTO #17

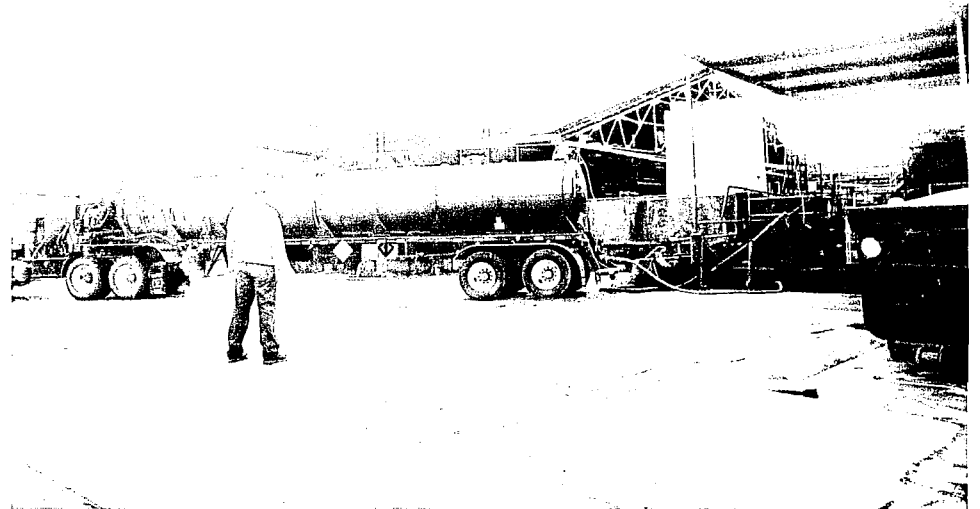


PHOTO #20



PHOTO #19

Q. Salazar

PHOTOGRAPHS TAKEN ON NOVEMBER 12, 2010

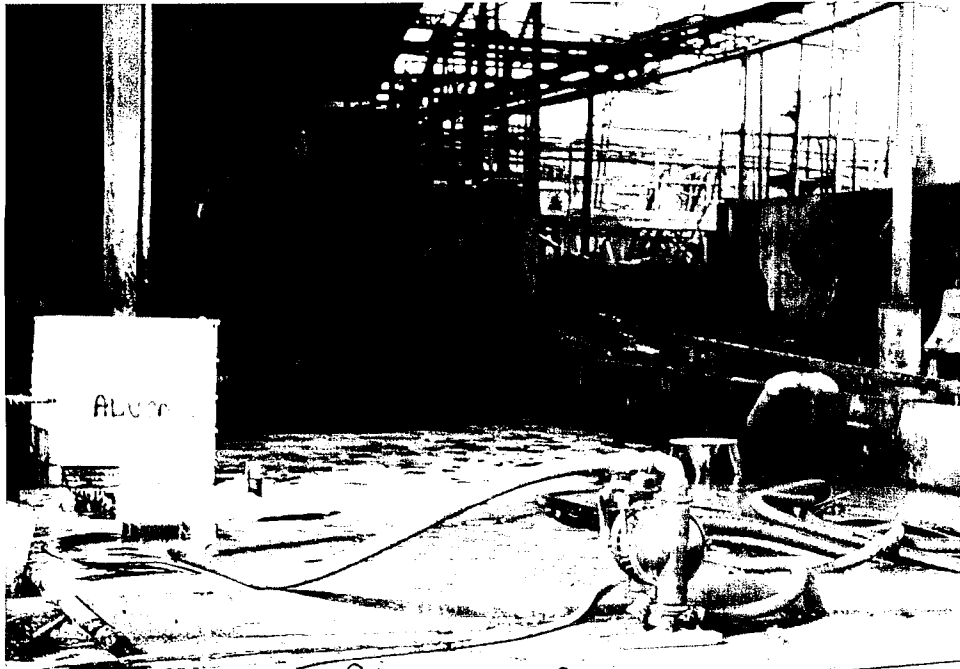


PHOTO # 2



PHOTO # 1

R. Salinas

PHOTOGRAPHS TAKEN ON NOVEMBER 15, 2010

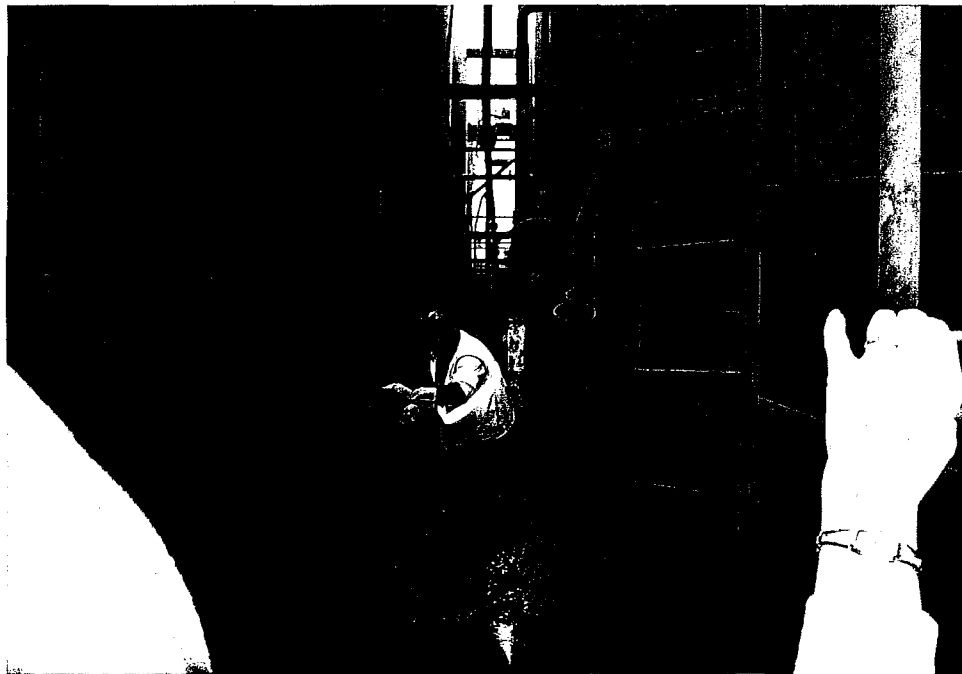


PHOTO #2



PHOTO #4



PHOTO #1

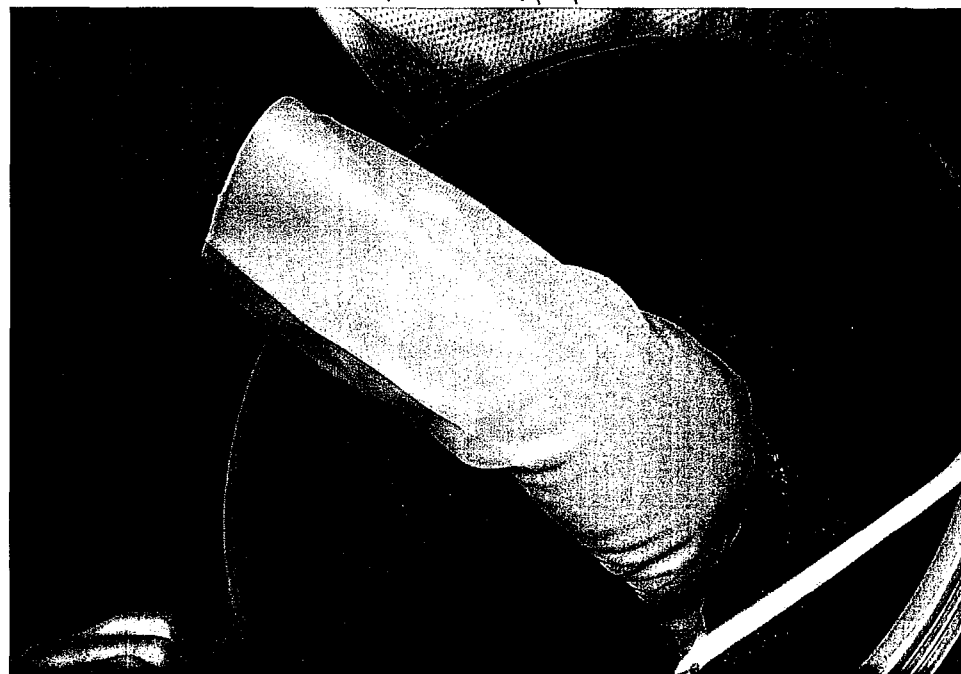


PHOTO #3

D. Salinas

PHOTOGRAPHS TAKEN ON NOVEMBER 15, 2010



PHOTO #6



PHOTO #5



PHOTO #7

V. Salinas 58

PHOTOGRAPHS TAKEN ON NOVEMBER 17, 2010

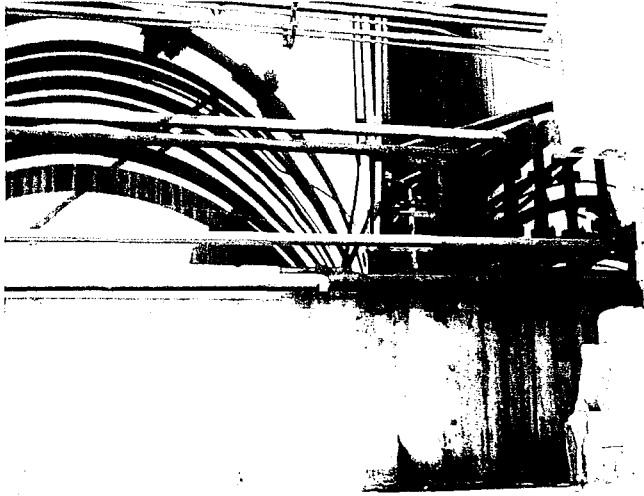


PHOTO #2

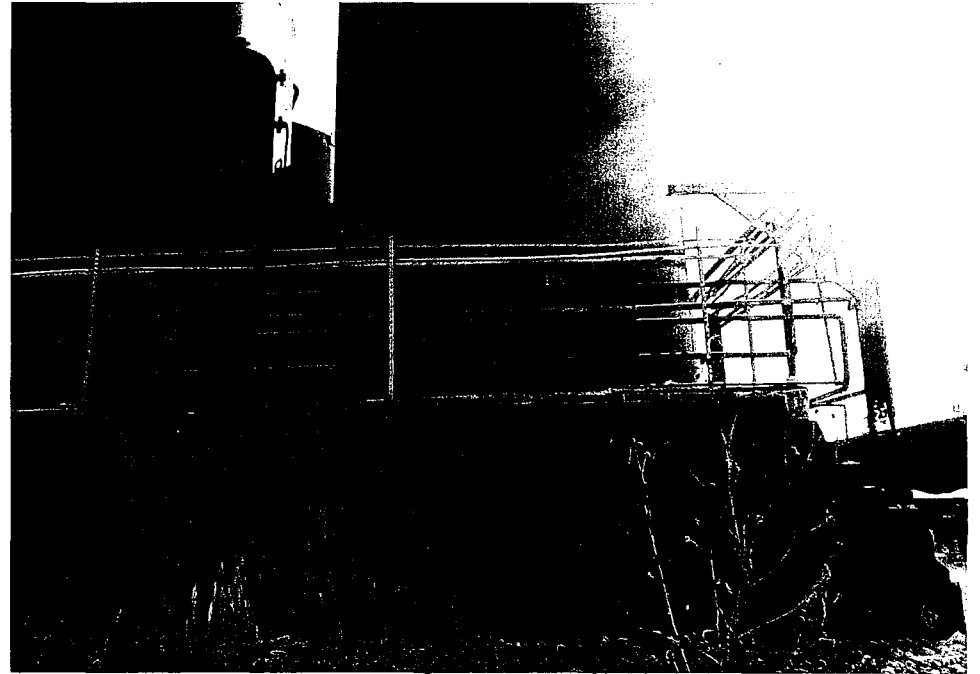


PHOTO #4



PHOTO #1

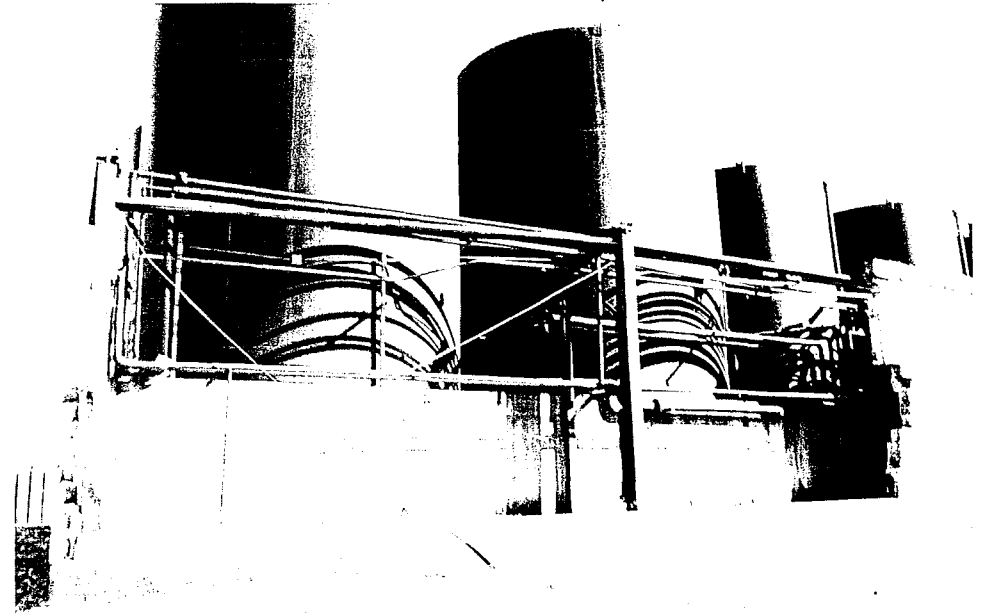


PHOTO #3

W. S. S. 59

PHOTOGRAPHS TAKEN ON NOVEMBER 17, 2010

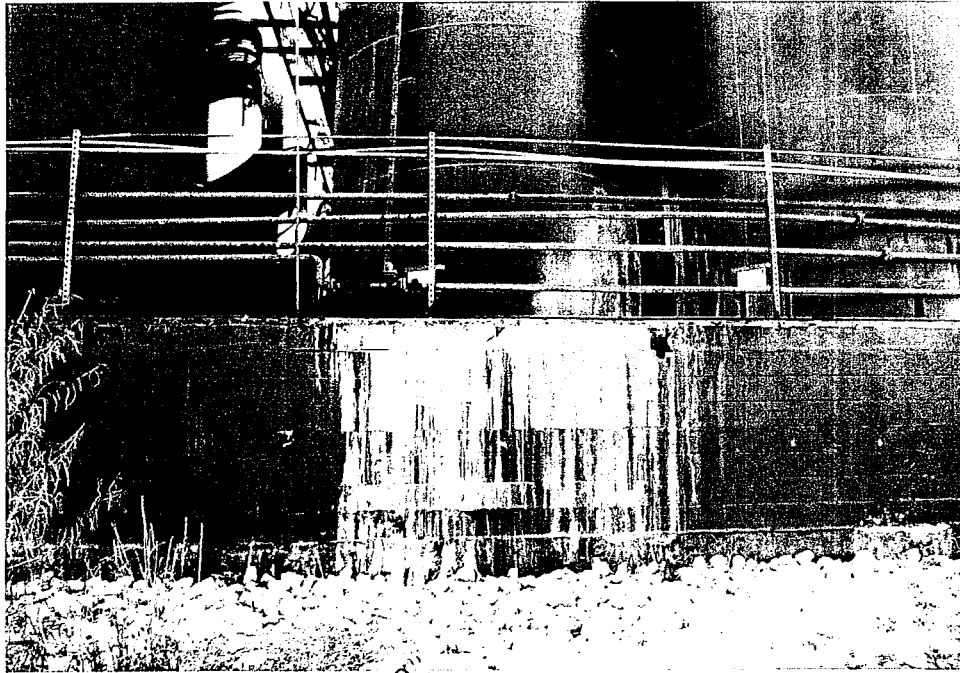


PHOTO #6

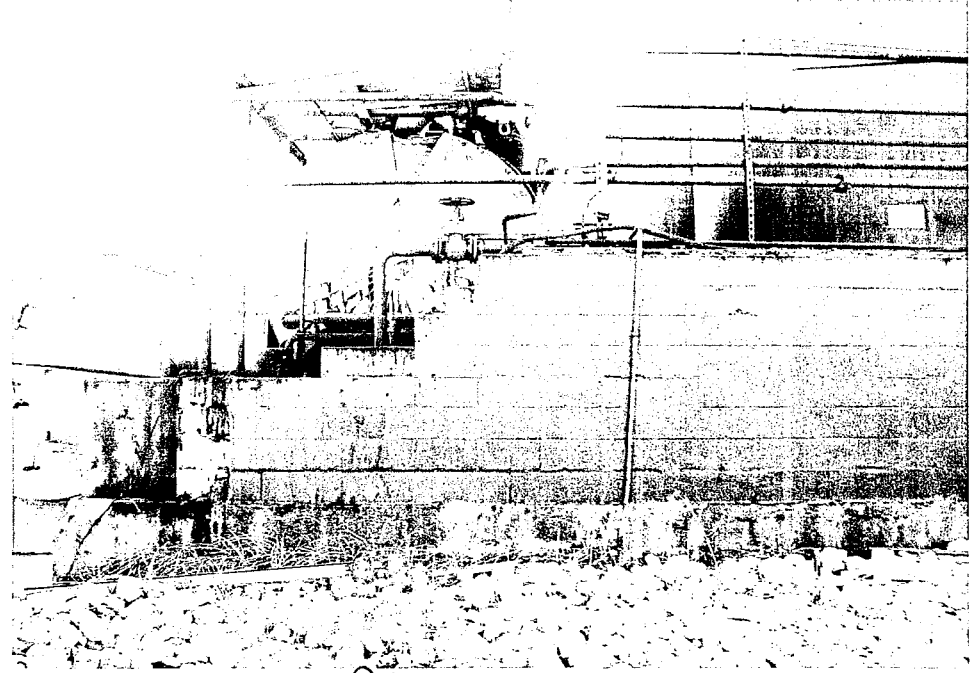


PHOTO #8

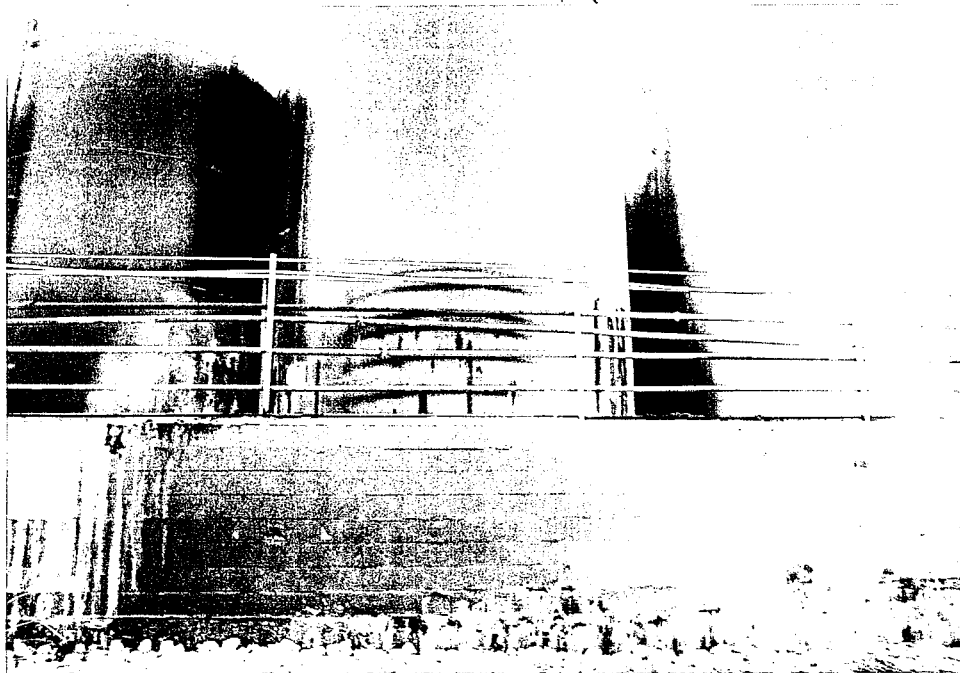


PHOTO #5

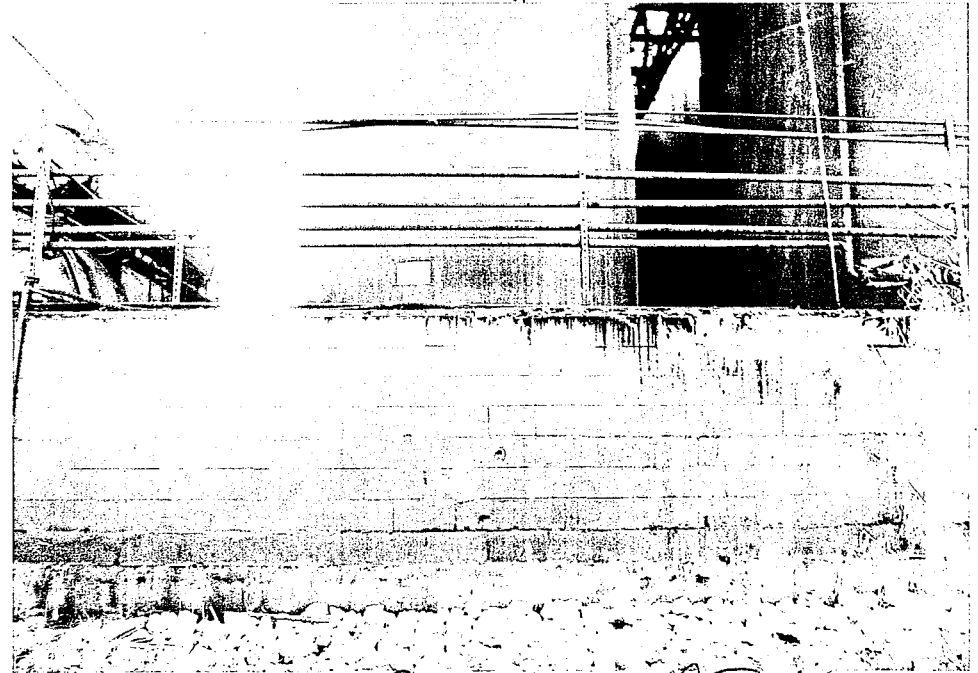


PHOTO #7 *Q Salvo* 60

PHOTOGRAPHS TAKEN ON NOVEMBER 17, 2010

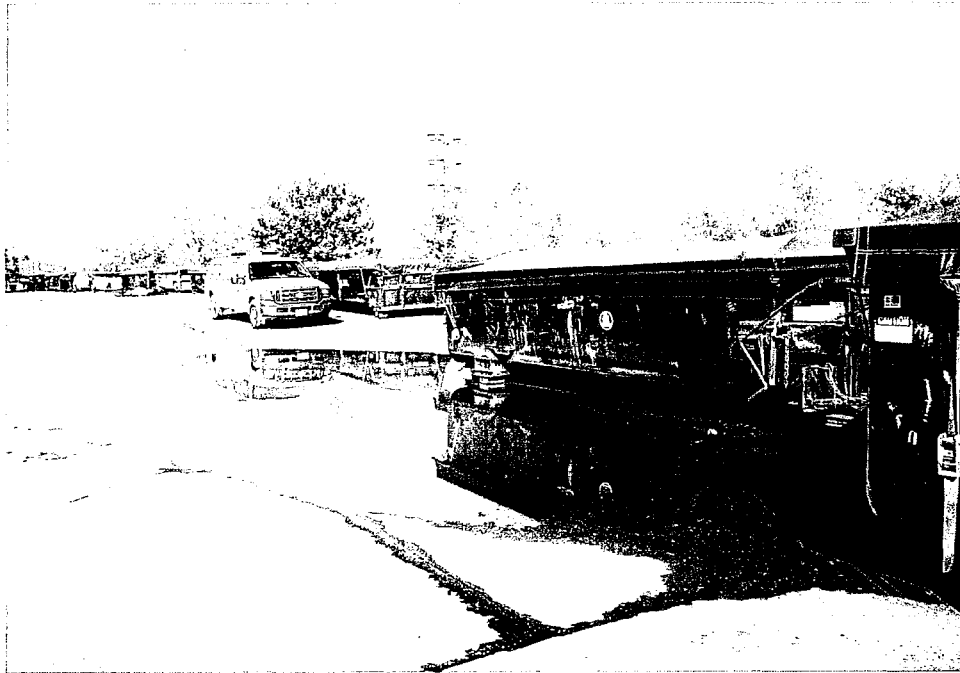


PHOTO #10

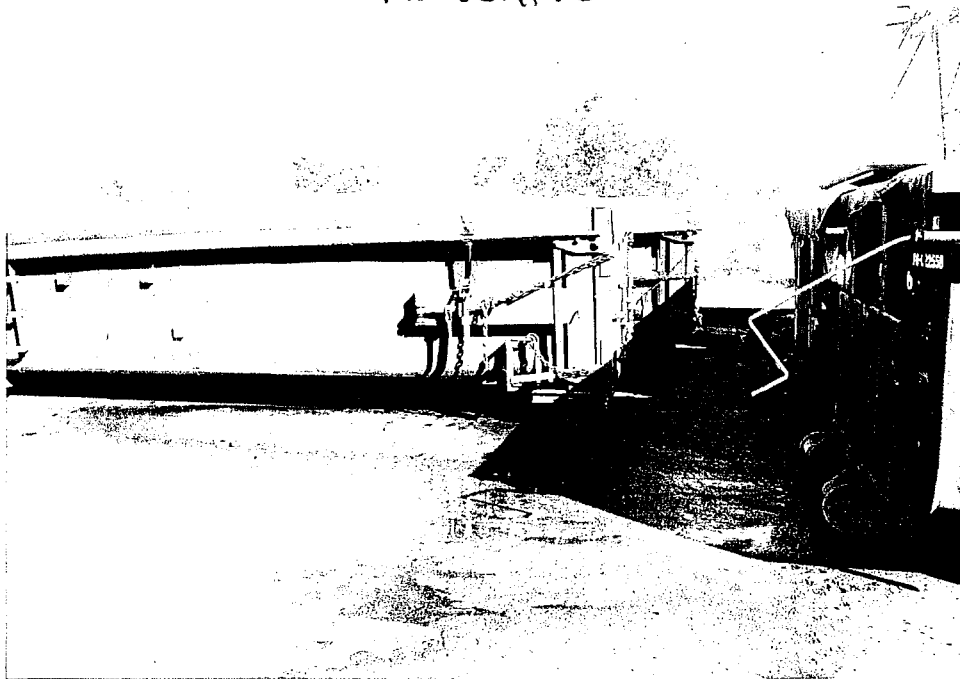


PHOTO #9

D. Salinas

PHOTOGRAPHS TAKEN ON NOVEMBER 18, 2010



PHOTO #2



PHOTO #4



PHOTO #1

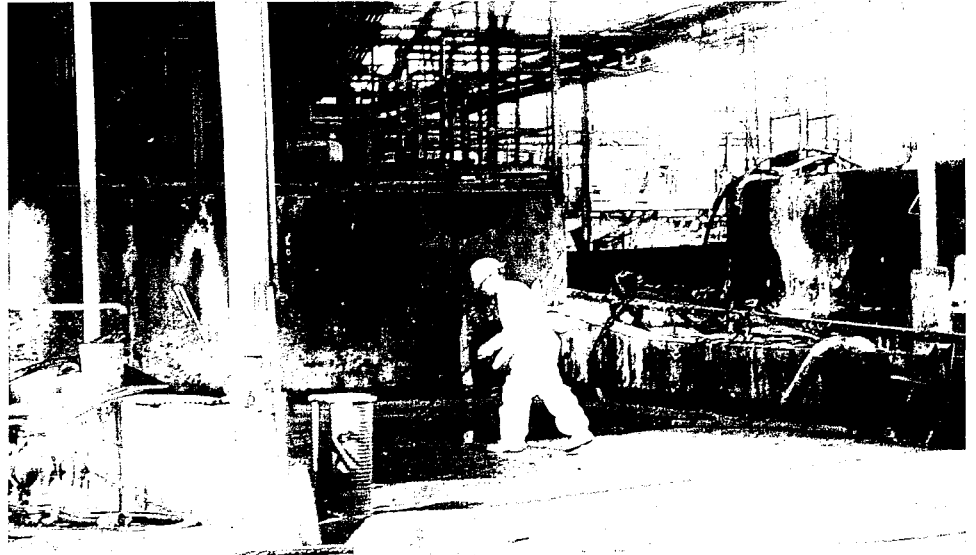


PHOTO #3

Salinas 62

PHOTOGRAPHS TAKEN ON NOVEMBER 18, 2010



PHOTO #5

ASalvador

PHOTOGRAPHS TAKEN ON NOVEMBER 22, 2010

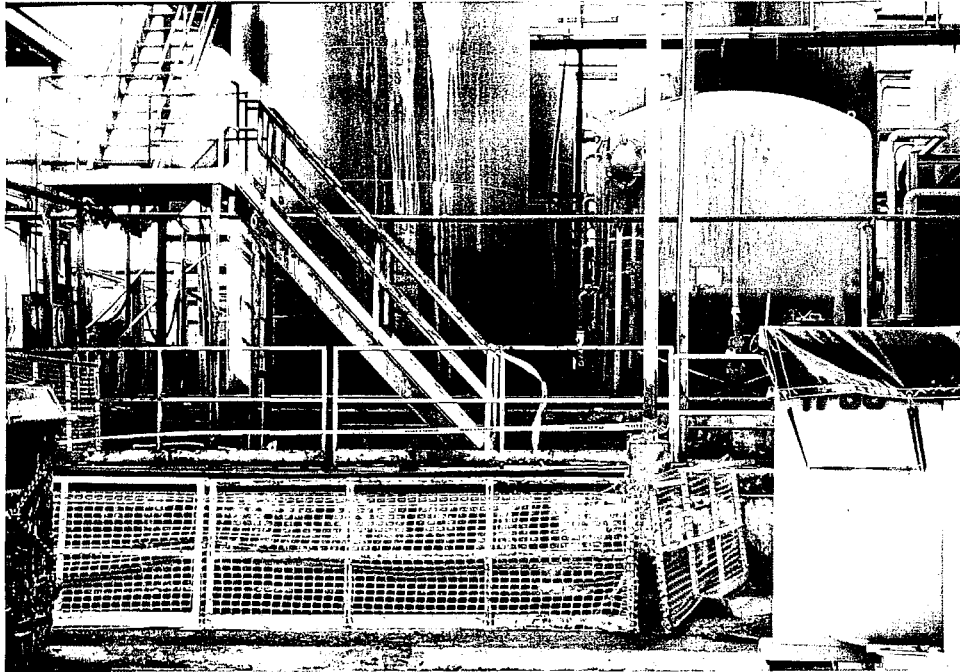


PHOTO #2

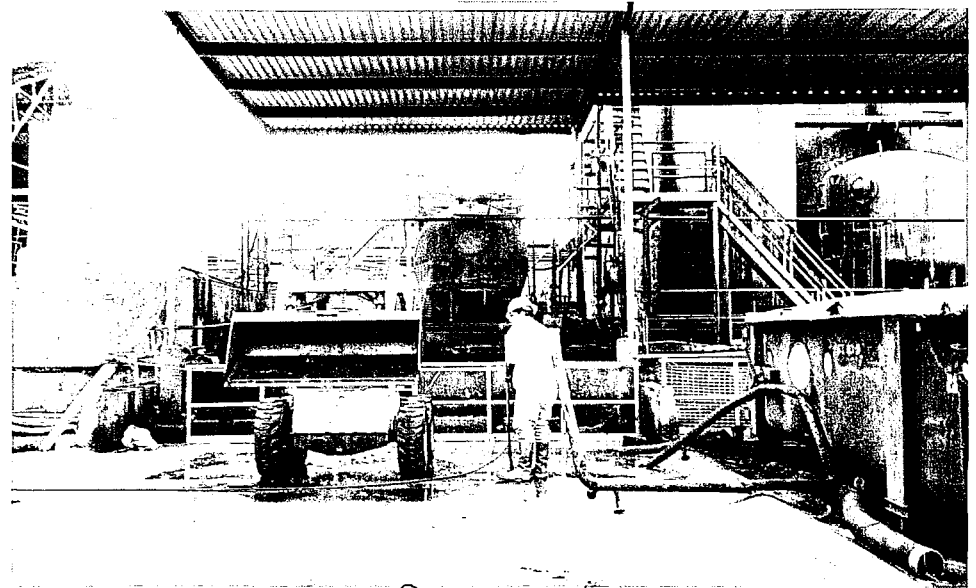


PHOTO #4

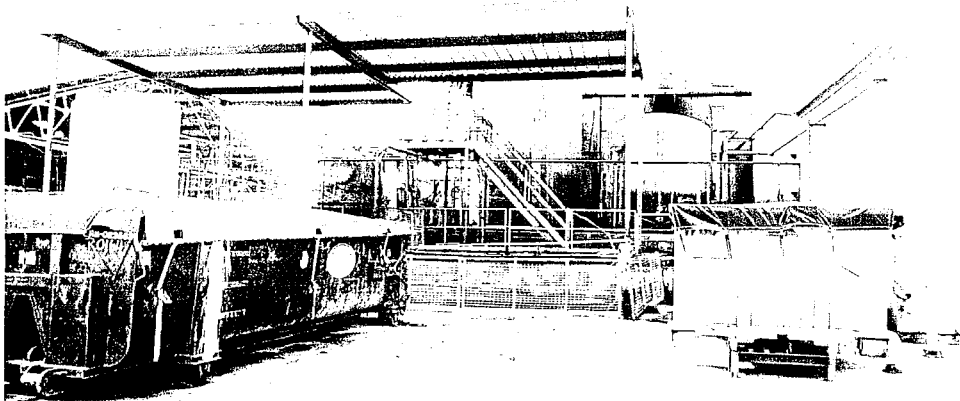


PHOTO #1

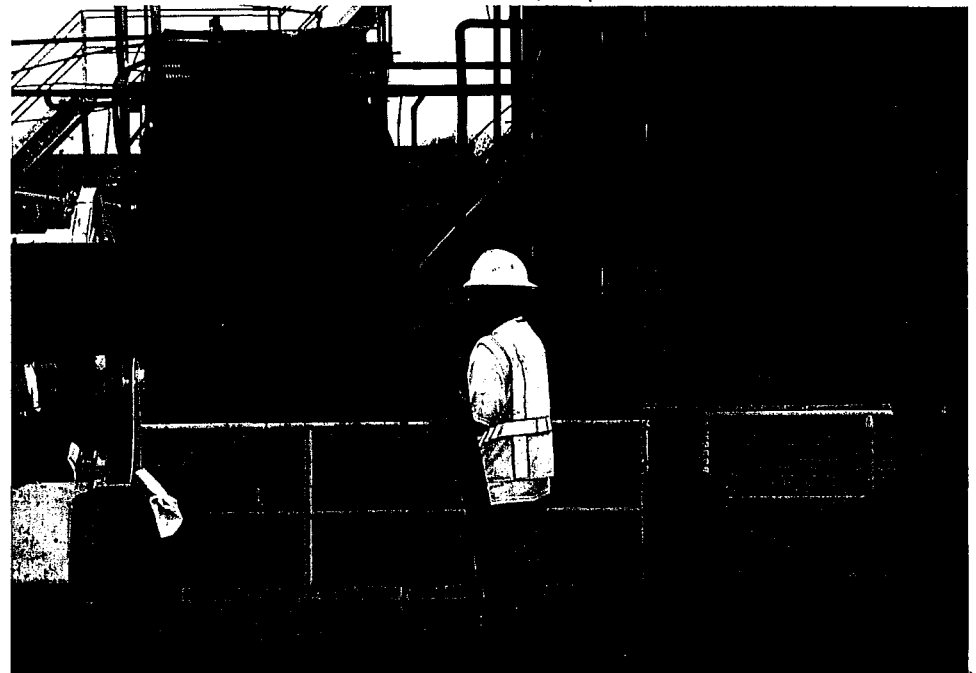


PHOTO #3

PHOTOGRAPHS TAKEN ON NOVEMBER 23, 2010



PHOTO#2



PHOTO#4



PHOTO#1



PHOTO#3

D. Solina 65

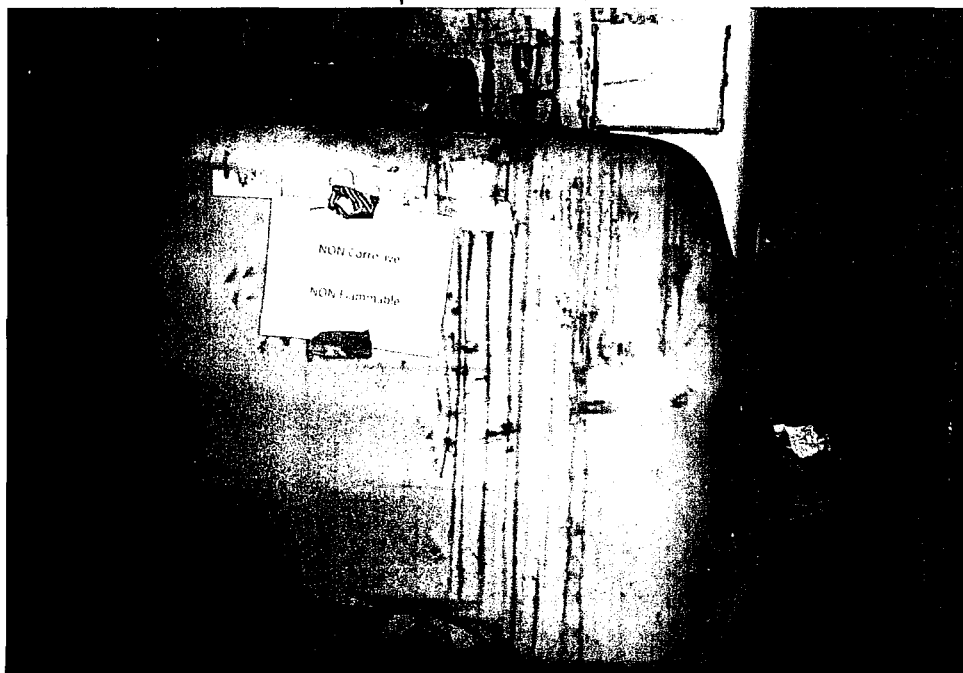
PHOTOGRAPHS TAKEN ON NOVEMBER 23, 2010



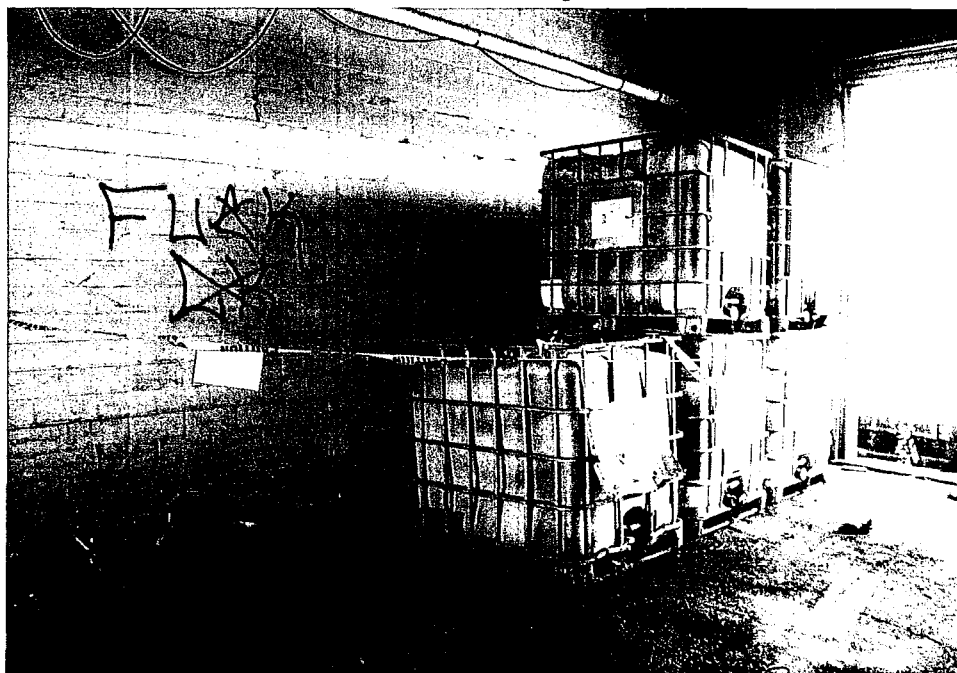
PHOTO#6



PHOTO#8



PHOTO#5



PHOTO#7

U.S. Salinas 66

PHOTOGRAPHS TAKEN ON NOVEMBER 23, 2010

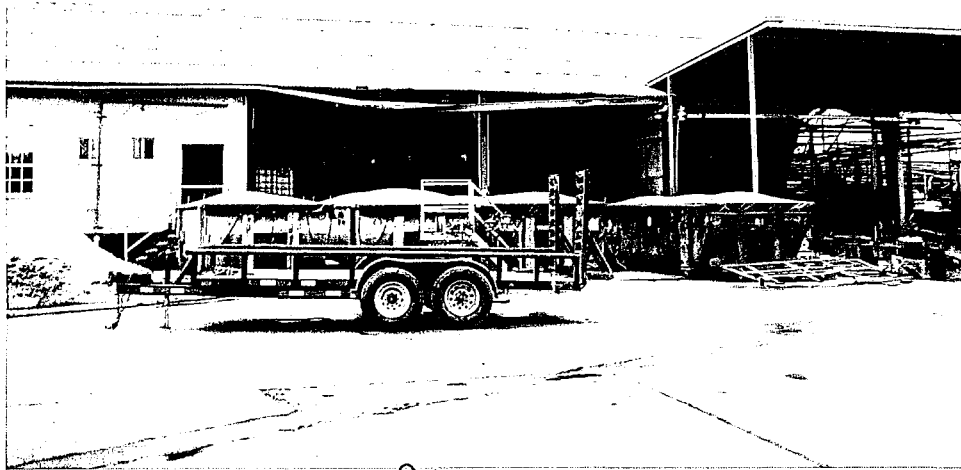


PHOTO #10

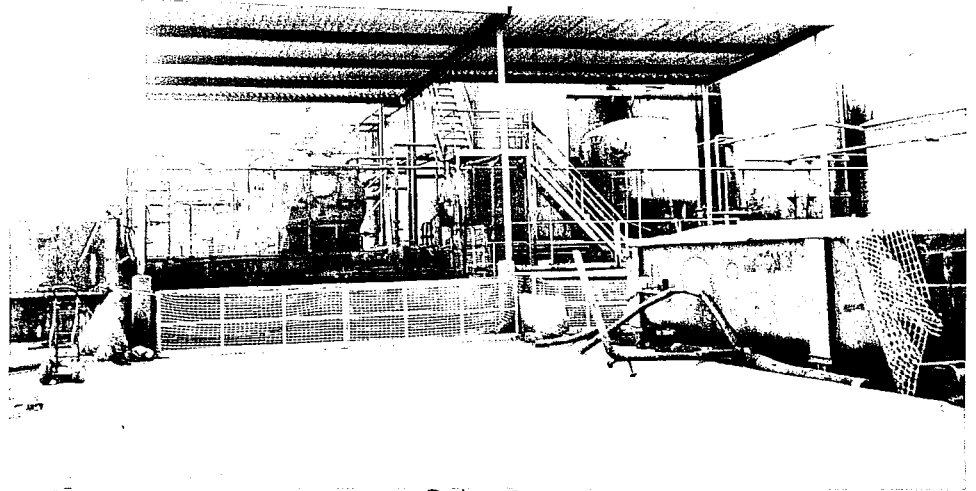


PHOTO #12



PHOTO #9

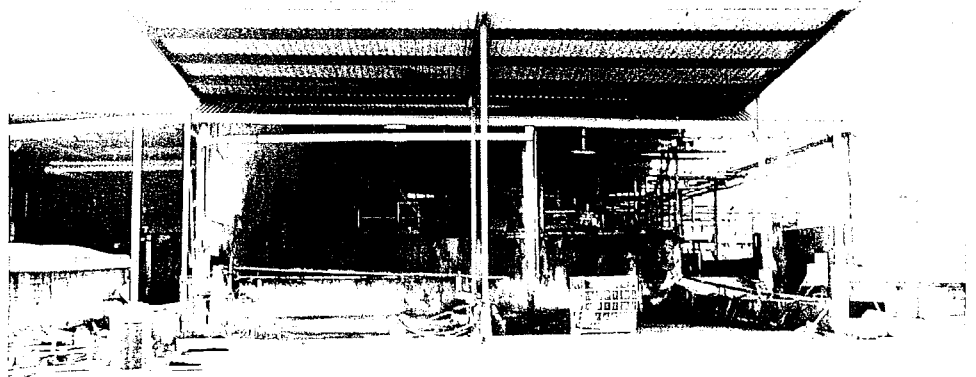


PHOTO #11

O. E. Smith 67

PHOTOGRAPHS TAKEN ON NOVEMBER 23, 2010

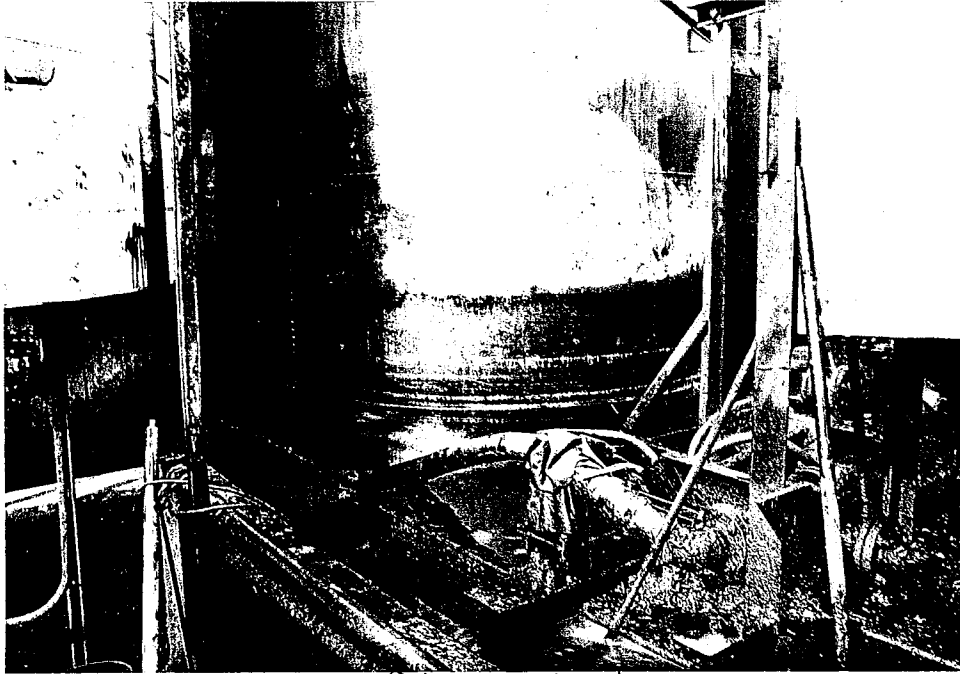


PHOTO #14

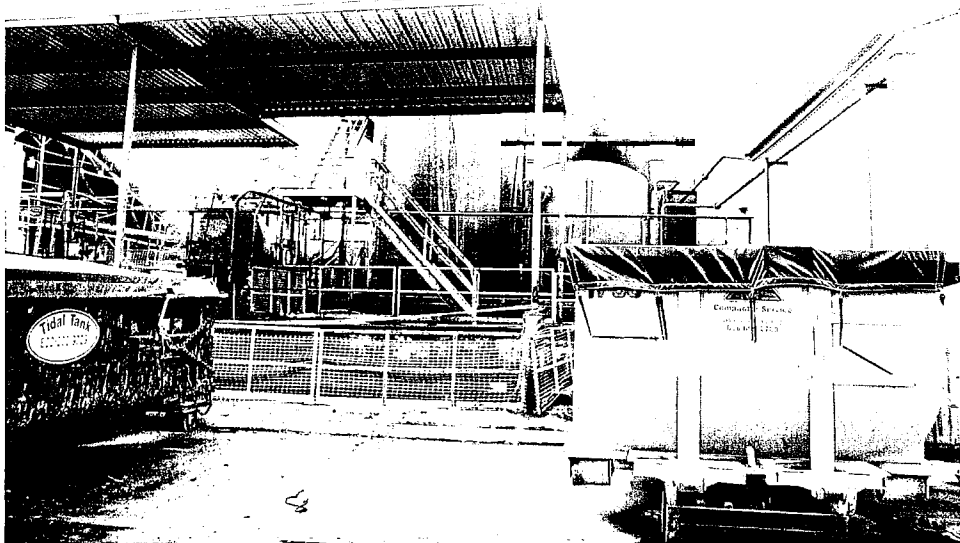


PHOTO #13

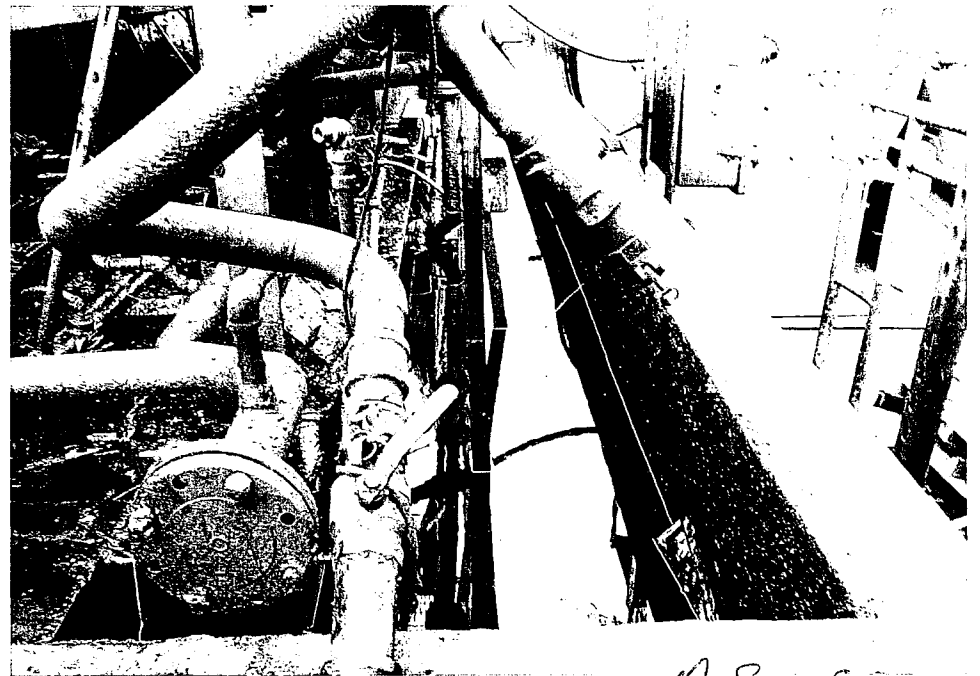


PHOTO #15 *W. Salas* 68

PHOTOGRAPHS TAKEN ON DECEMBER 1, 2010

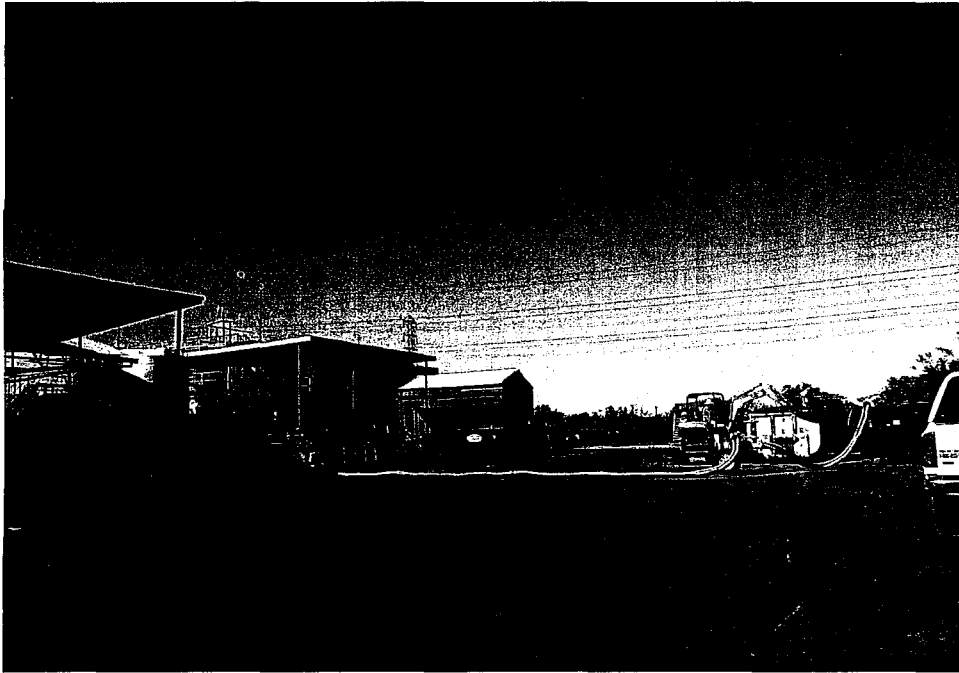


PHOTO #2



PHOTO #4

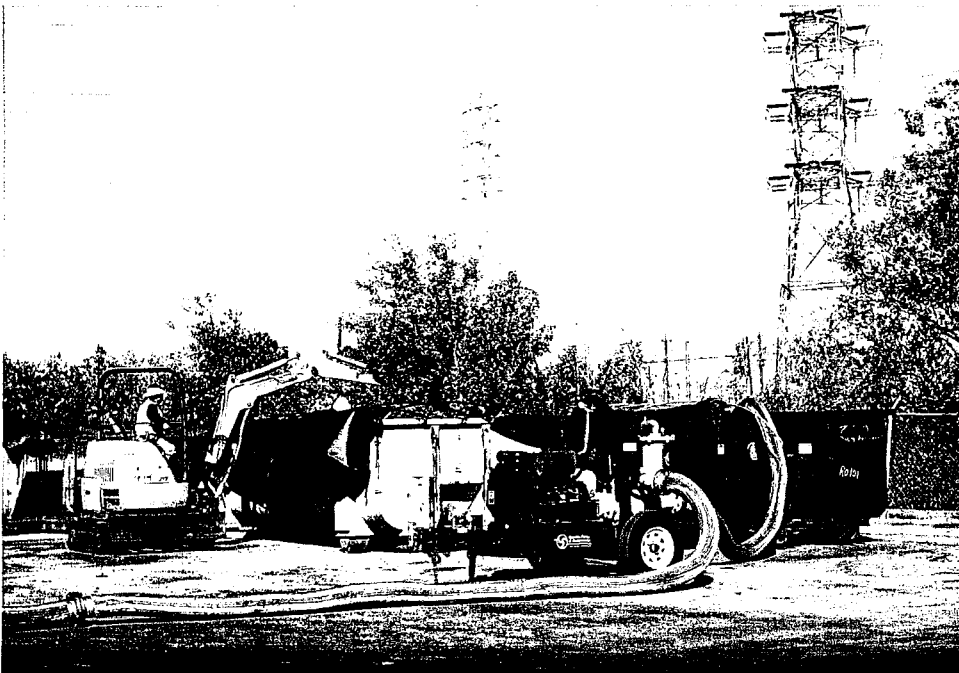


PHOTO #1

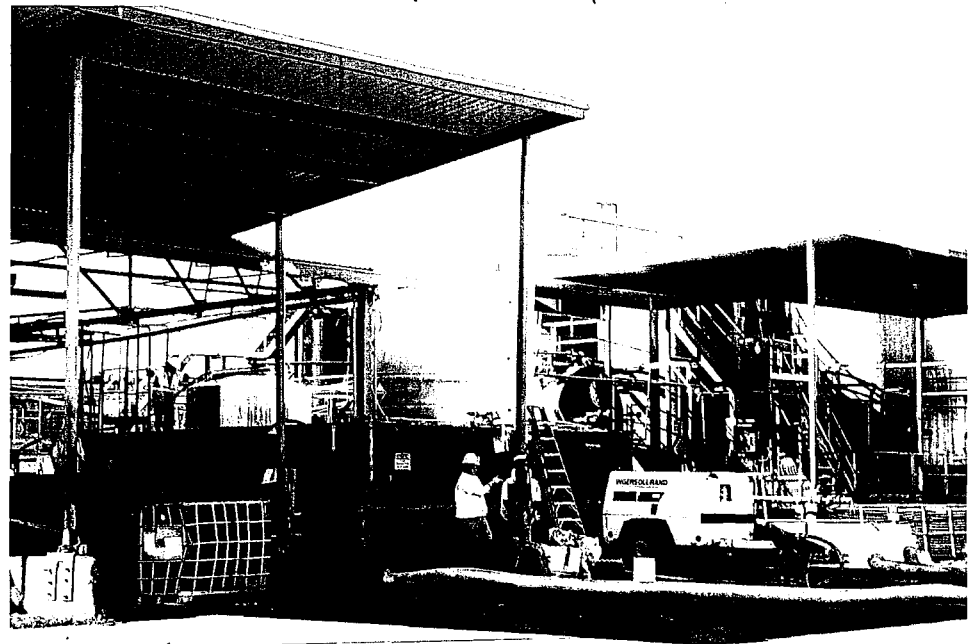


PHOTO #3

Salinas

PHOTOGRAPHS TAKEN ON DECEMBER 3, 2010



PHOTO #2

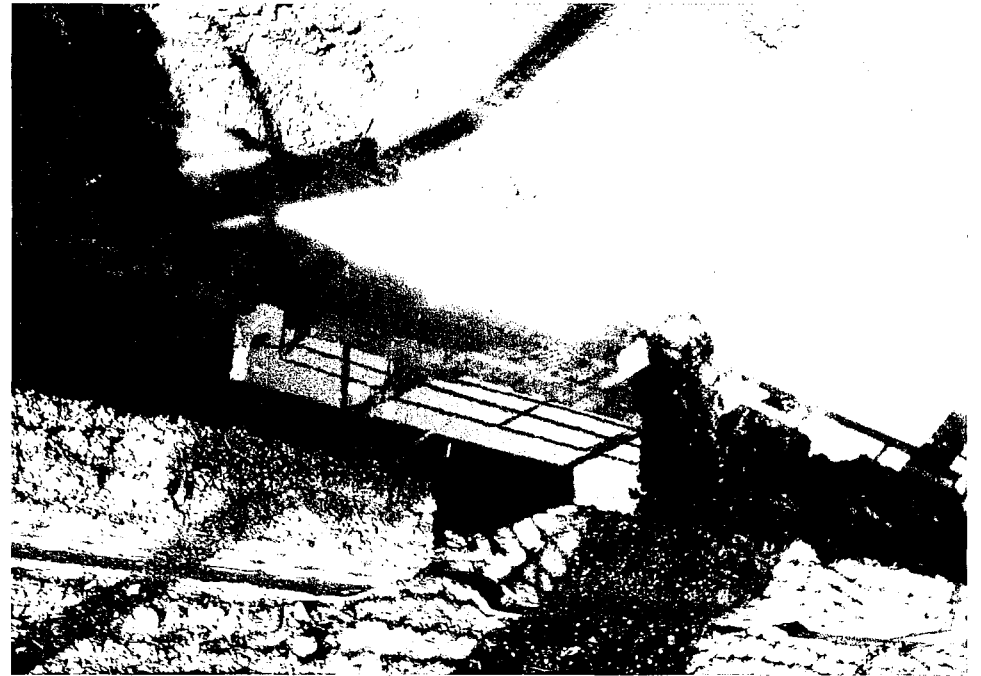


PHOTO #4

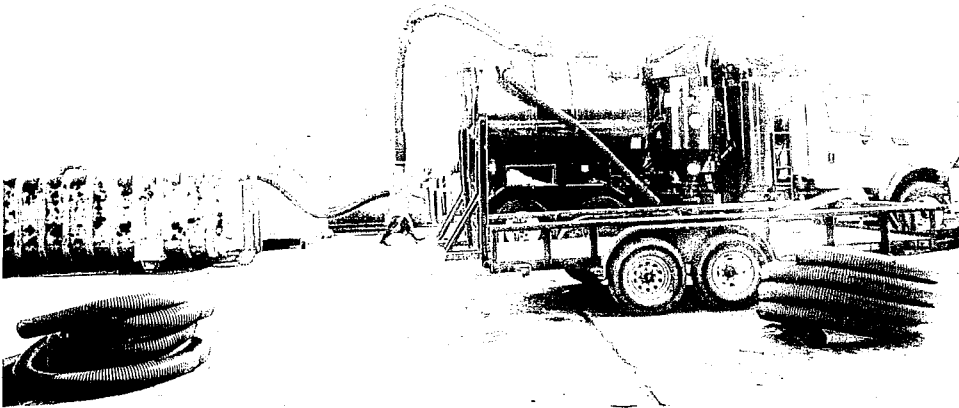


PHOTO #1



PHOTO #3

Walden 70

PHOTOGRAPHS TAKEN ON DECEMBER 3, 2010

UNITED STATES DISTRICT COURT
 Southern District of Texas
 Civil Action No. 4:10-cv-02703

Case: Specialty Insurance Company
 Plaintiff
 U.S. On Remedy, LP, Scallach International, LLC,
 MOC Insurance, LP, and Kaus Generator
 Defendants

SUMMONS IN A CIVIL ACTION

To: (Defendant's name and address)
 Scallach International, LLC
 Kaus Generator
 400 North Main Street
 Pasadena, Texas 77508

A lawsuit has been filed against you.
 Within 21 days after service of this summons on you (not counting the day you received it) or 60 days if you are the United States or a United States agency, or an officer or employee of the United States described in Fed. R. Civ. P. 12 (a)(3) or (3) — you must serve on the plaintiff an answer to the attached complaint or a motion under Rule 12 of the Federal Rules of Civil Procedure. The answer or motion must be served on the plaintiff or plaintiff's attorney, whose name and address are: Ellen von Maltz, 700 N. Pease, Suite 200, Dallas, Texas 75201.

If you fail to respond, judgment may be taken against you without a trial. You also must file your answer or motion with the court.

NOV 18 2010
 Date:
 Signature:
 11/18/10

PHOTO #6



PHOTO #5

ASalmer

PHOTOGRAPHS TAKEN ON DECEMBER 7, 2010

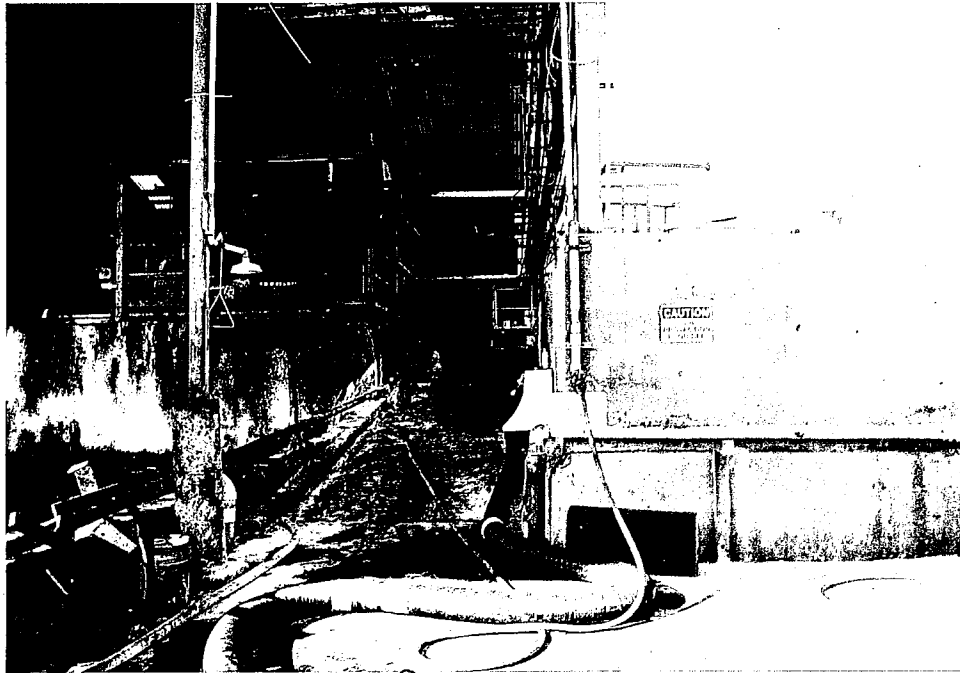


PHOTO #2



PHOTO #1

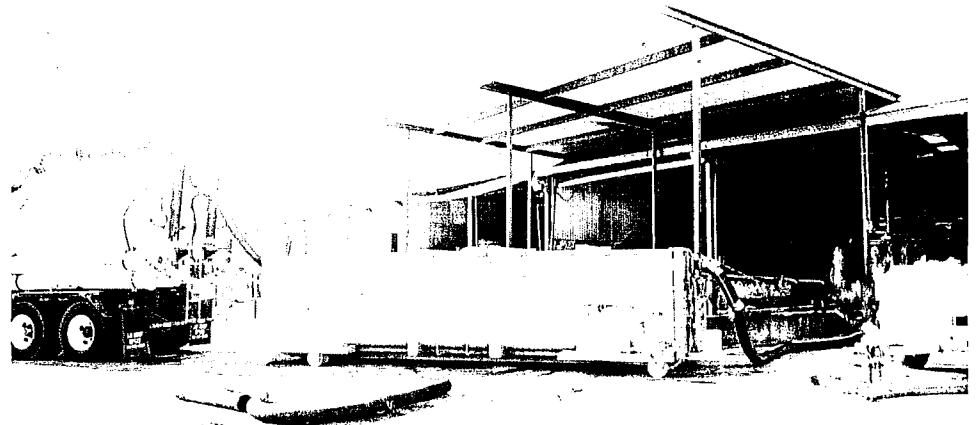


PHOTO #3 *Salinas* 72

PHOTOGRAPHS TAKEN ON DECEMBER 9, 2010

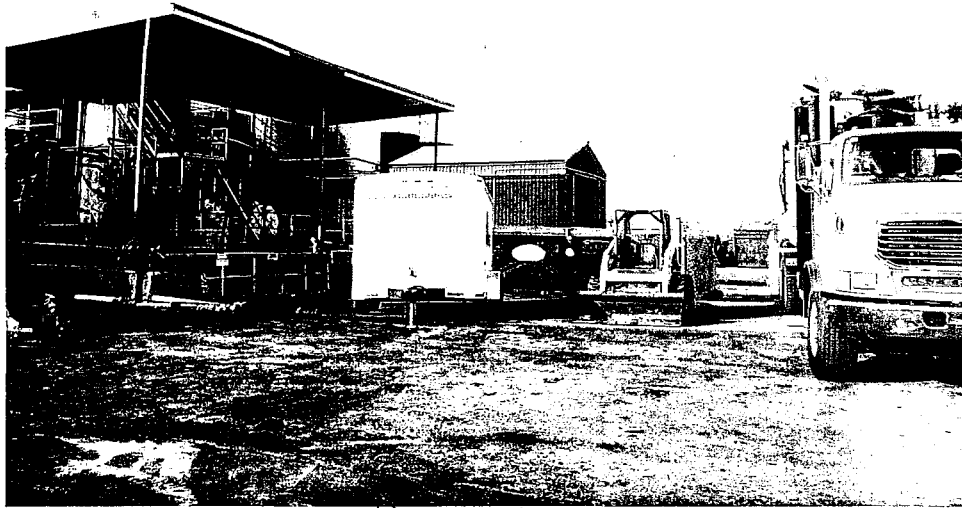


PHOTO #2

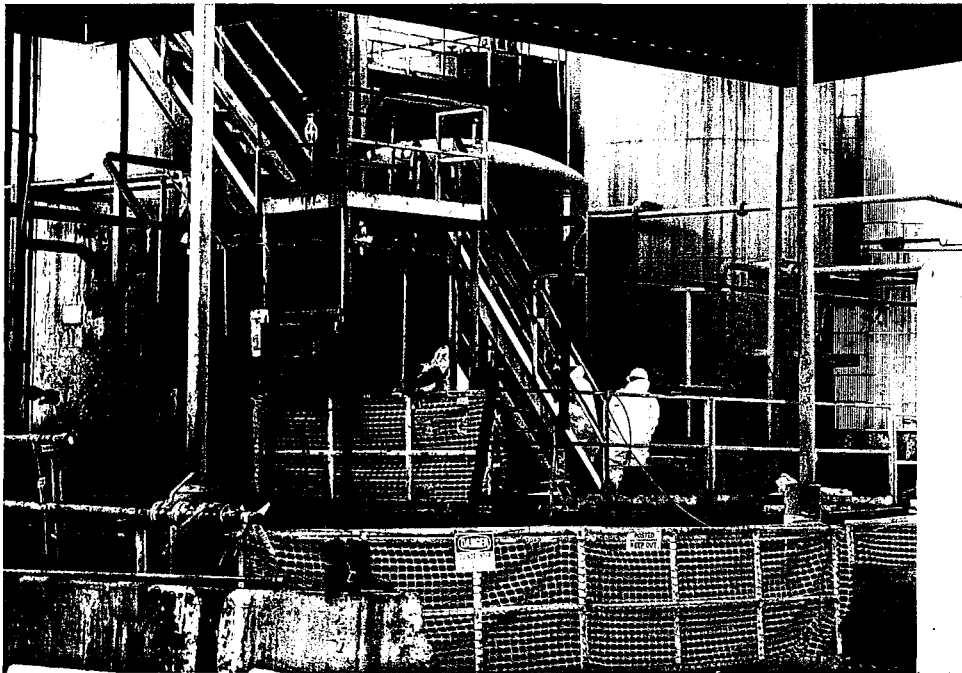


PHOTO #1

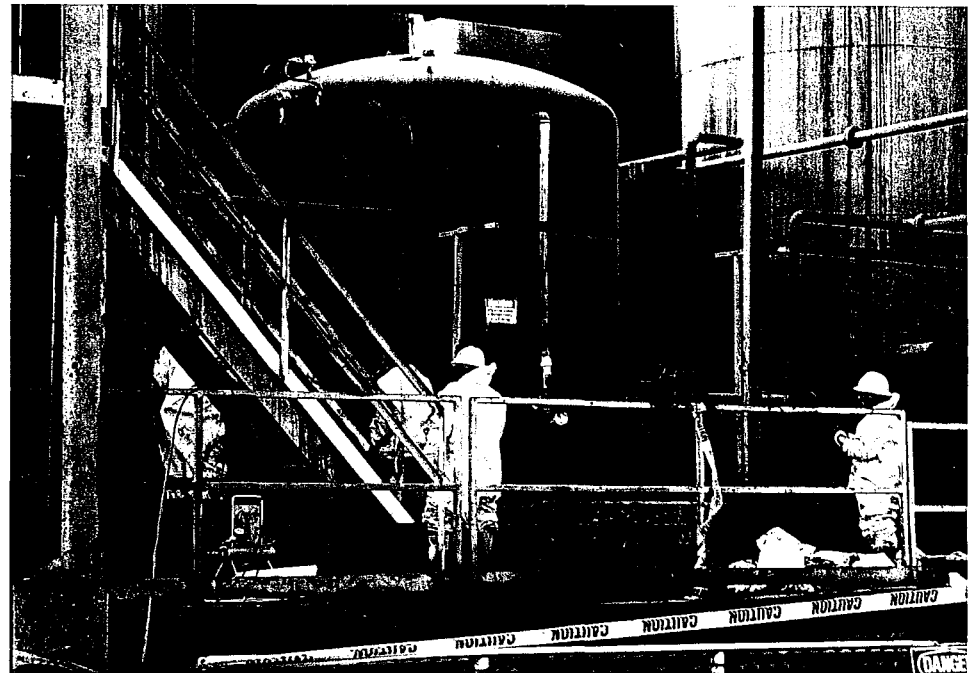


PHOTO #3

Walins 73

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010



PHOTO #2

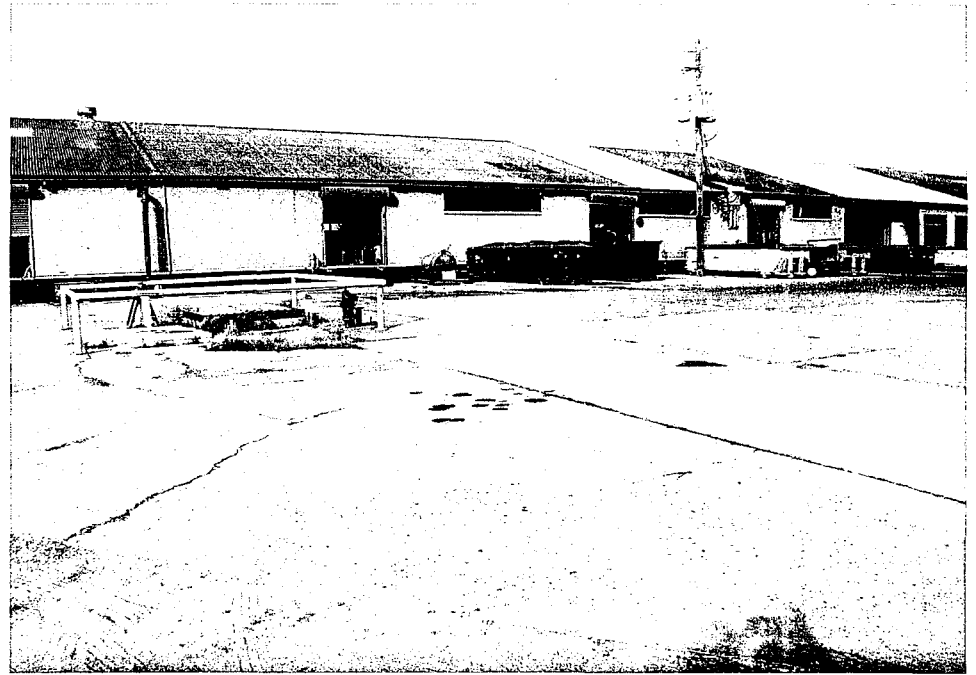


PHOTO #4



PHOTO #1



PHOTO #3

Salmon

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010



PHOTO #6



PHOTO #5



PHOTO #8



PHOTO #7

V. Selma 75

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010



PHOTO #10



PHOTO #12



PHOTO #9



PHOTO #11

USCIBIOS

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010



PHOTO #14

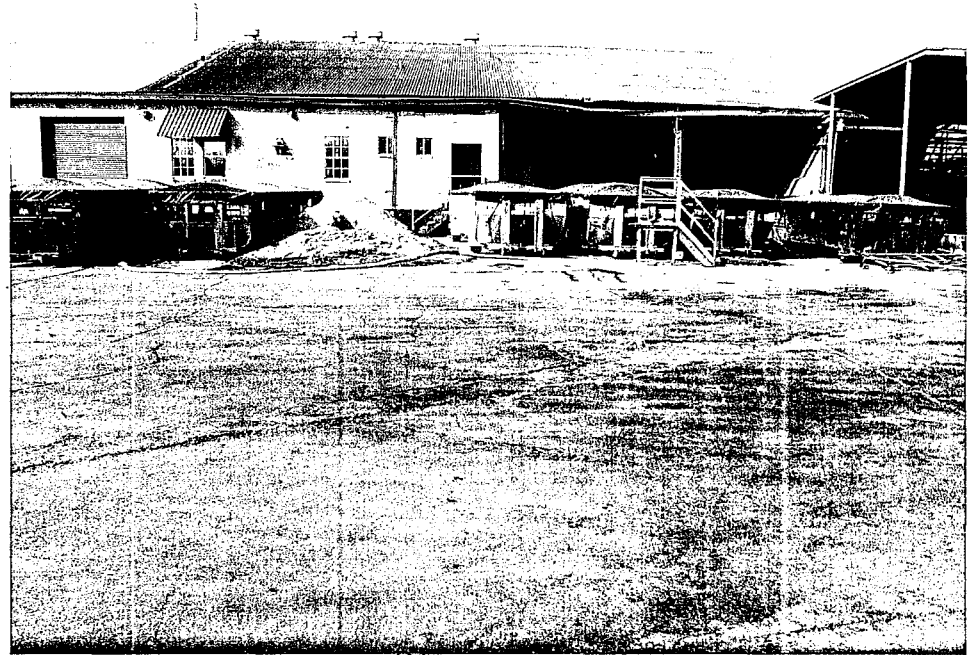


PHOTO #16

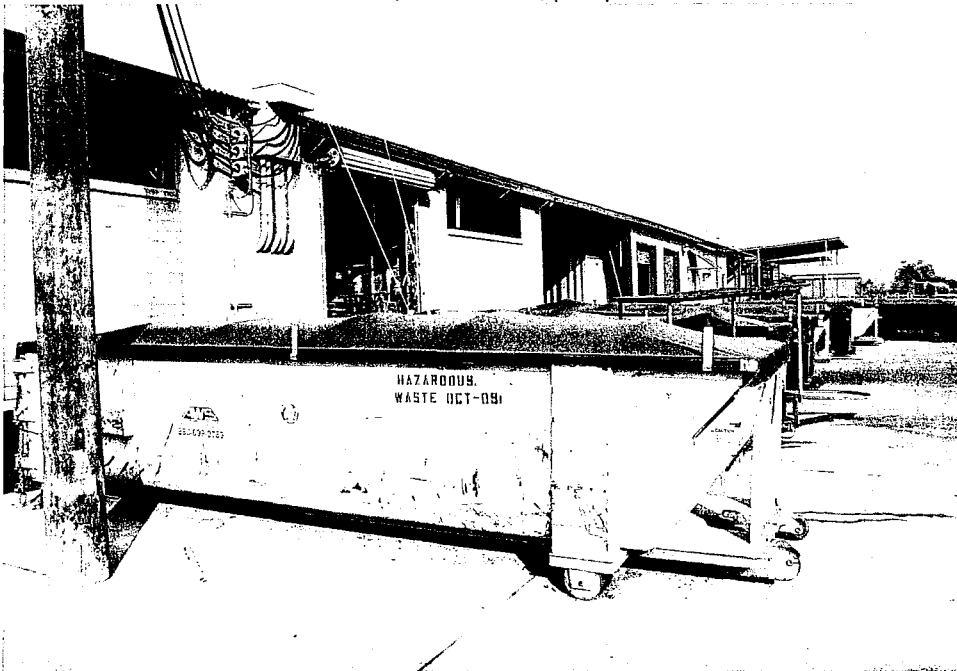


PHOTO #13



PHOTO #15

[Signature] 77

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010

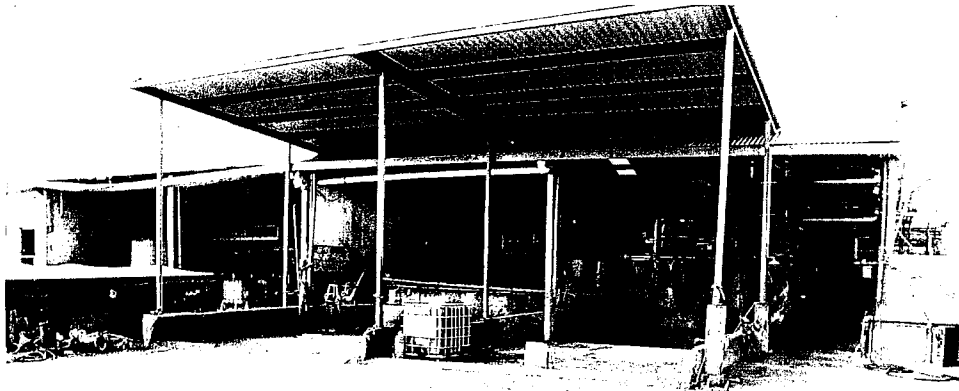


PHOTO #18



PHOTO #17

PHOTO #20



PHOTO #19 *W. Schindler* 78

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010

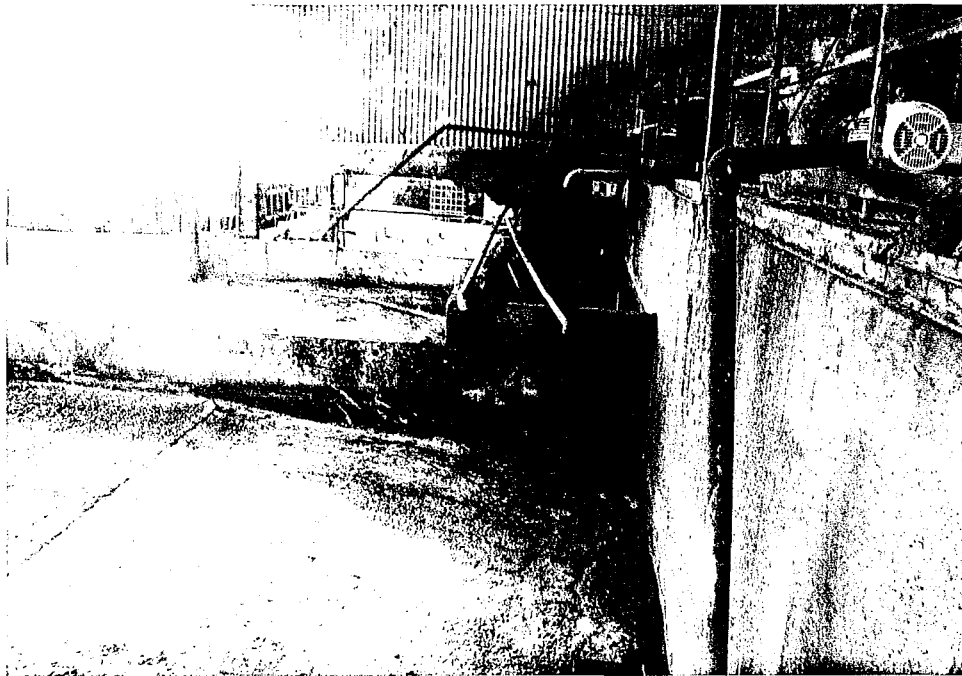


PHOTO #22

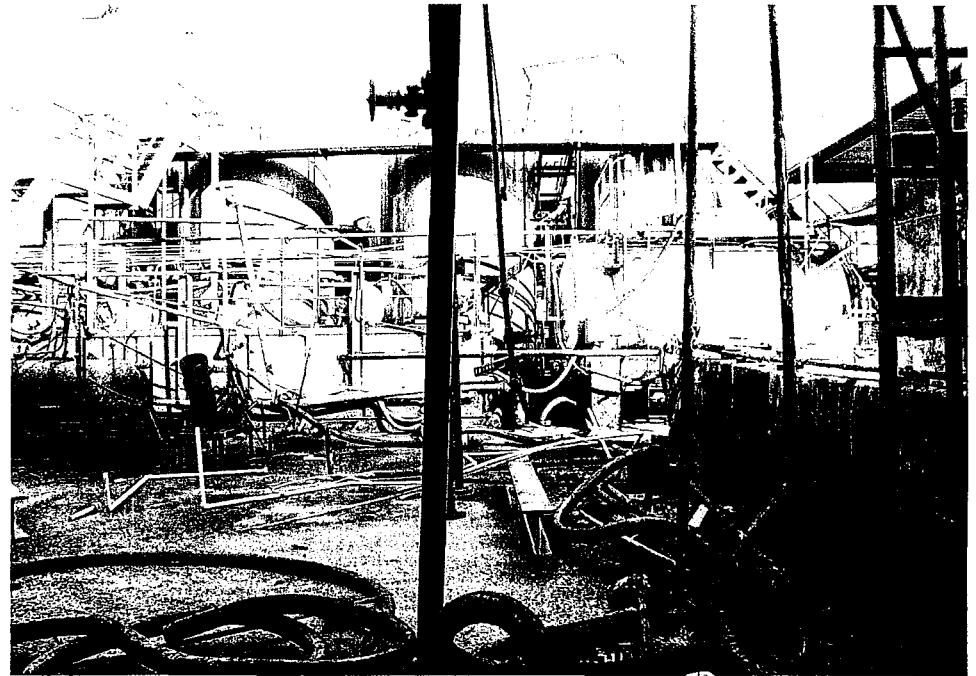


PHOTO #24



PHOTO #21



PHOTO #23 U.S. Salinas 79

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010

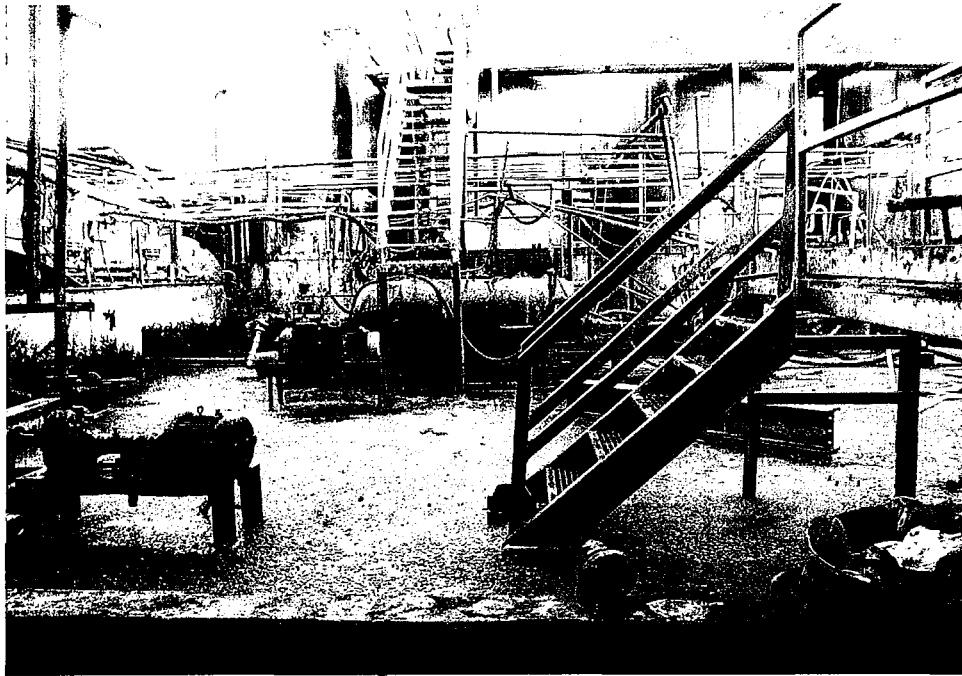


PHOTO #26

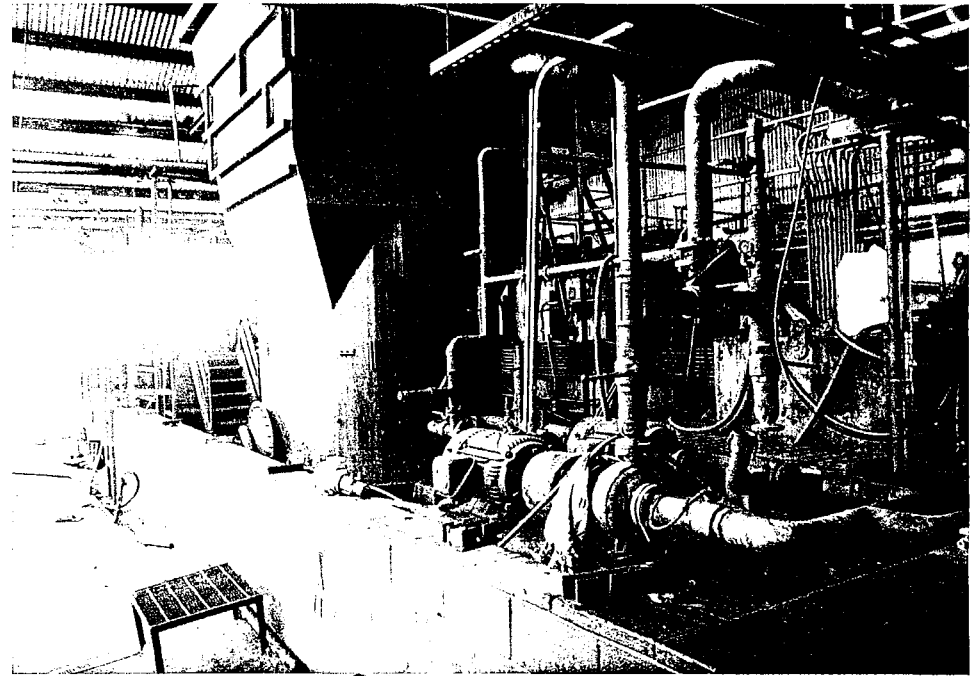


PHOTO #28



PHOTO #25

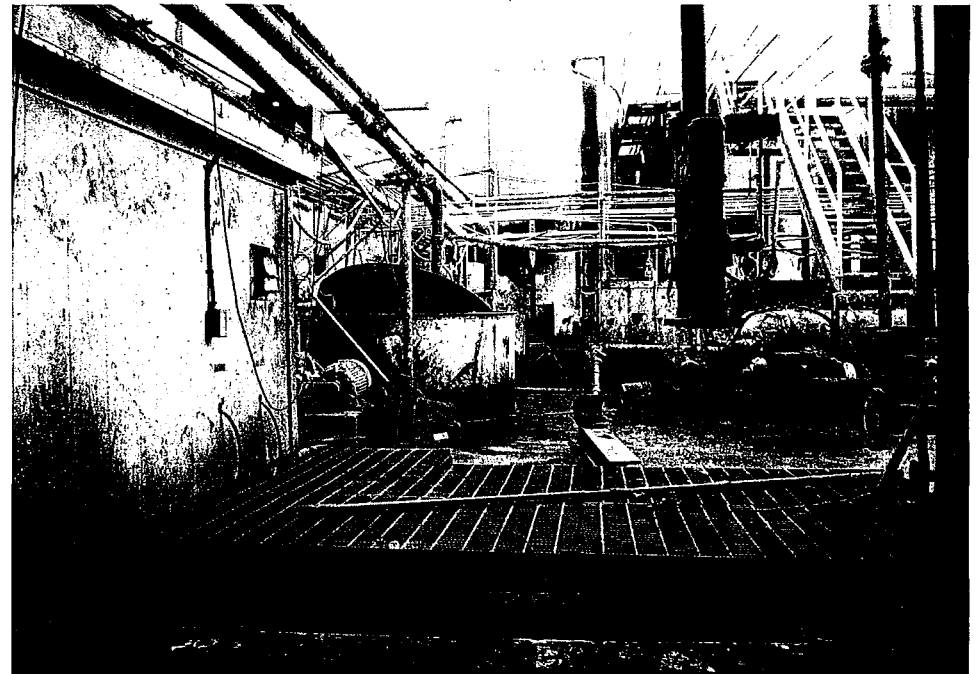


PHOTO #27

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010

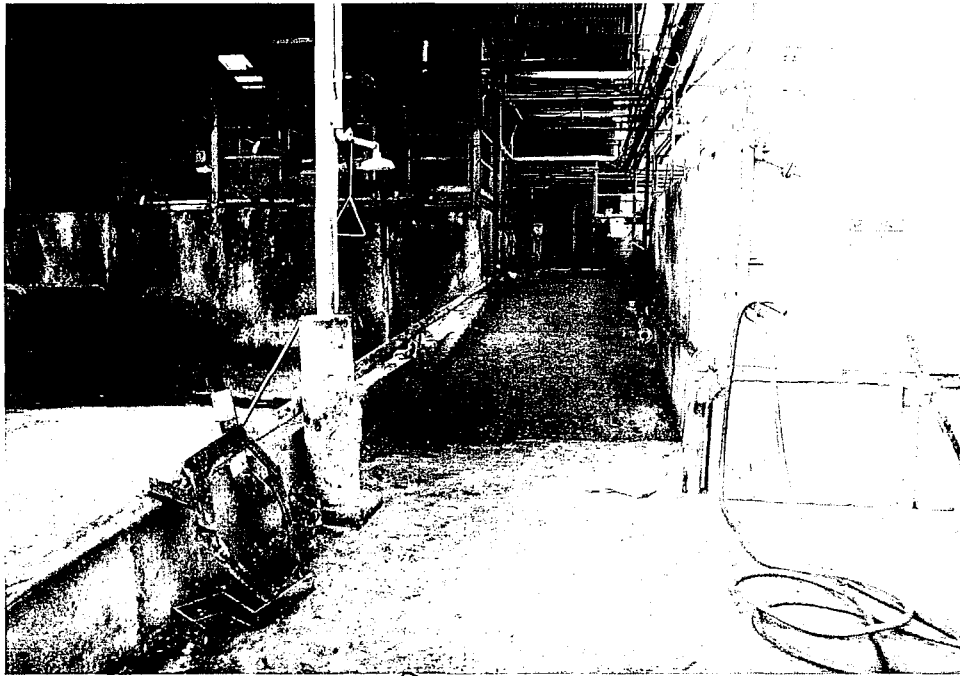


PHOTO #30

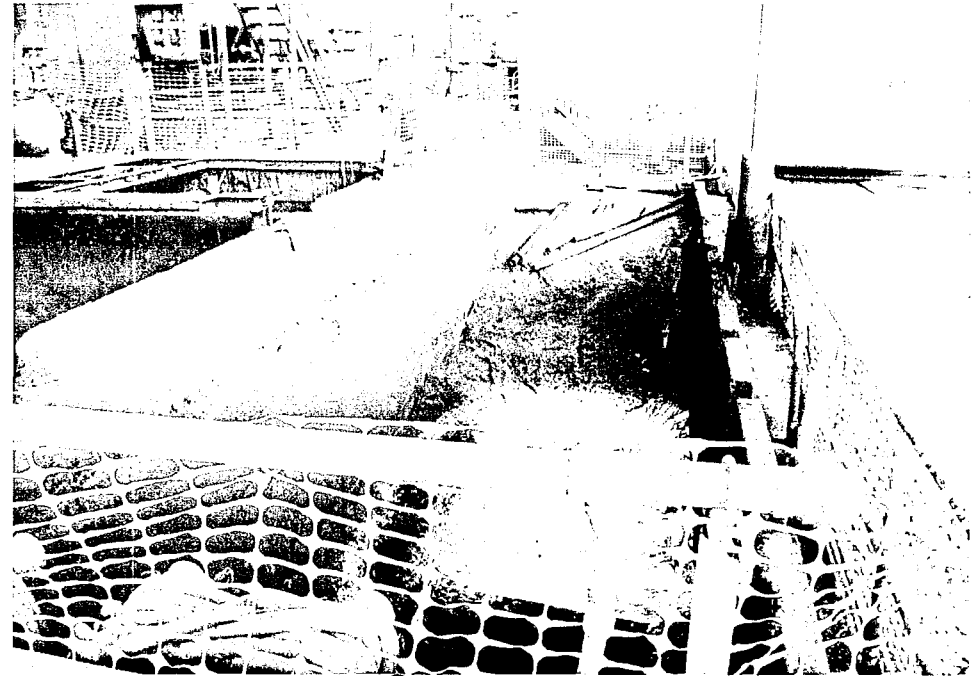


PHOTO #32



PHOTO #29

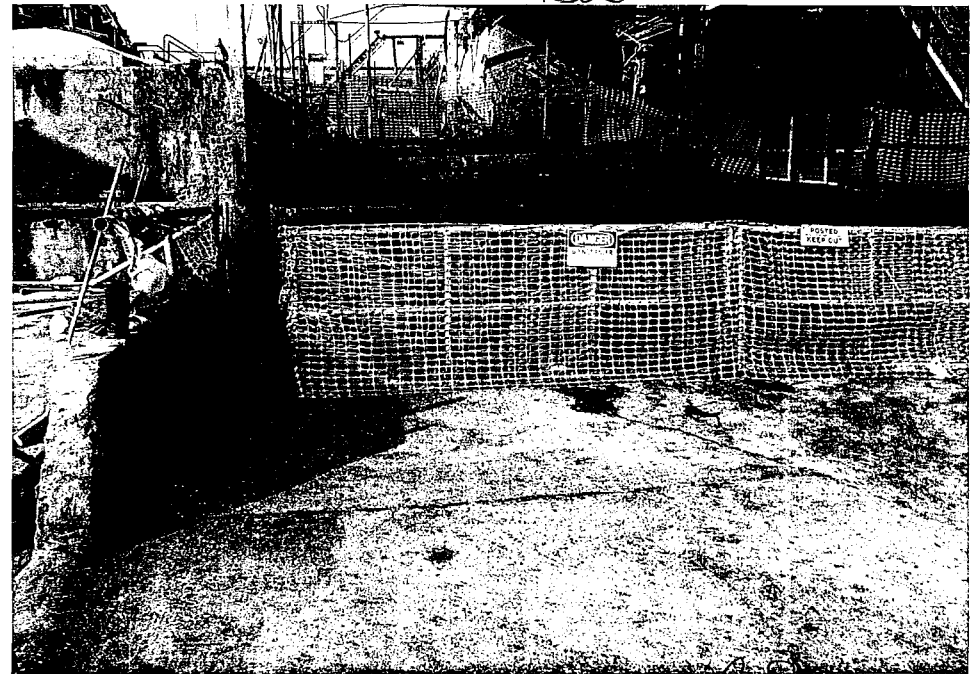


PHOTO #31

W. Salinas

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010



PHOTO #34

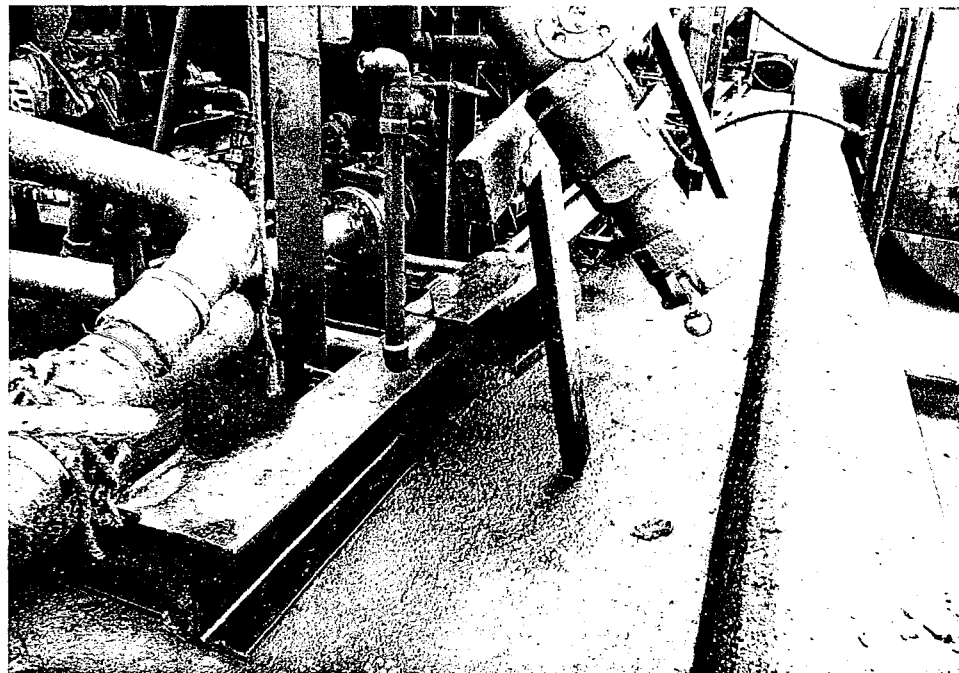


PHOTO #36

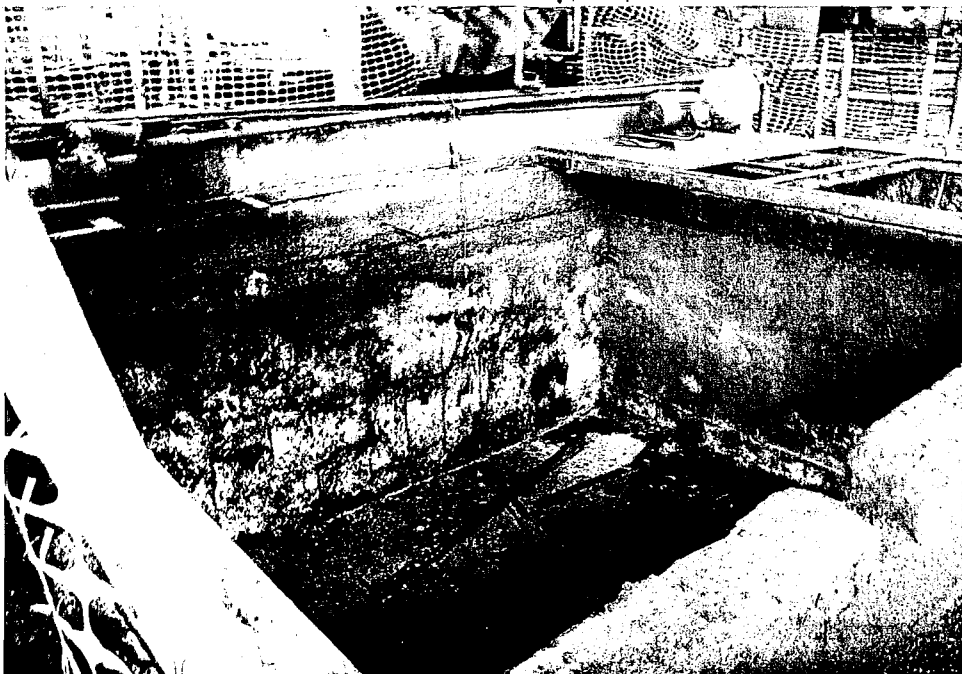


PHOTO #33



PHOTO #35

D. Salinas

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010

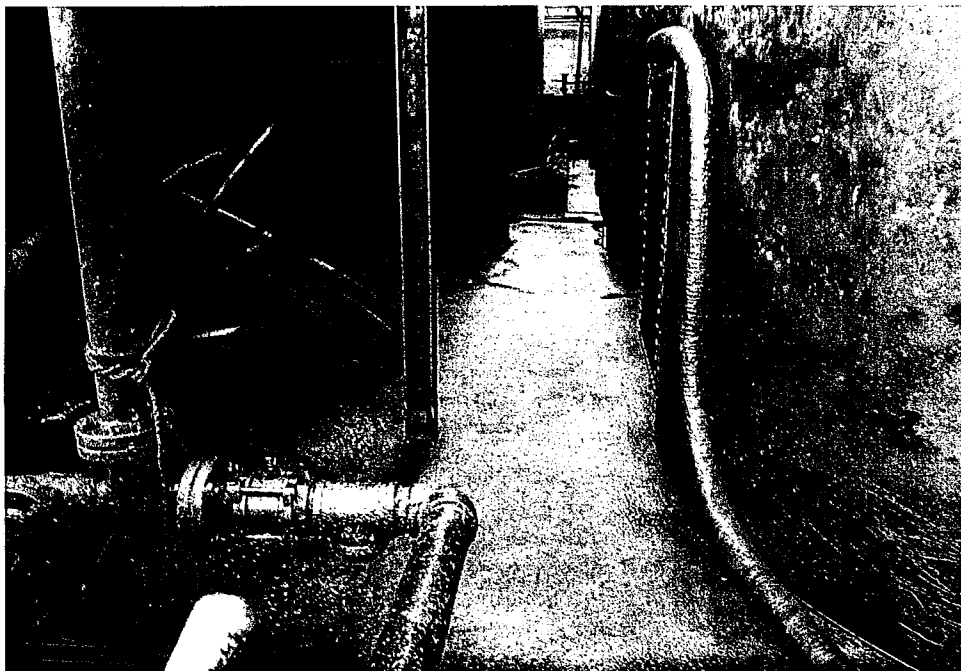


PHOTO #38



PHOTO #40

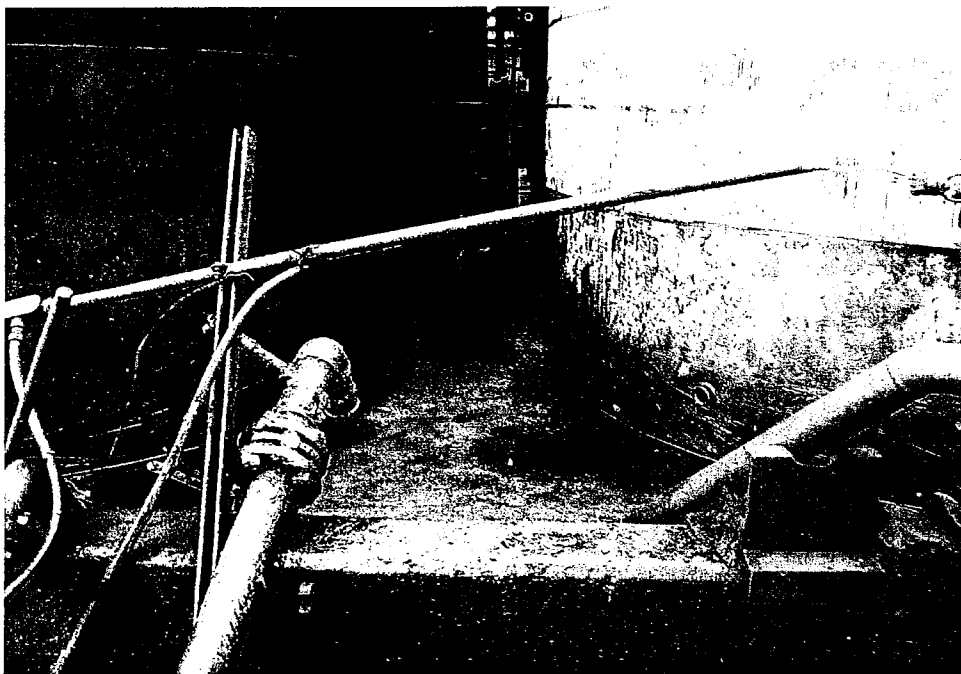


PHOTO #37



PHOTO #39

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010

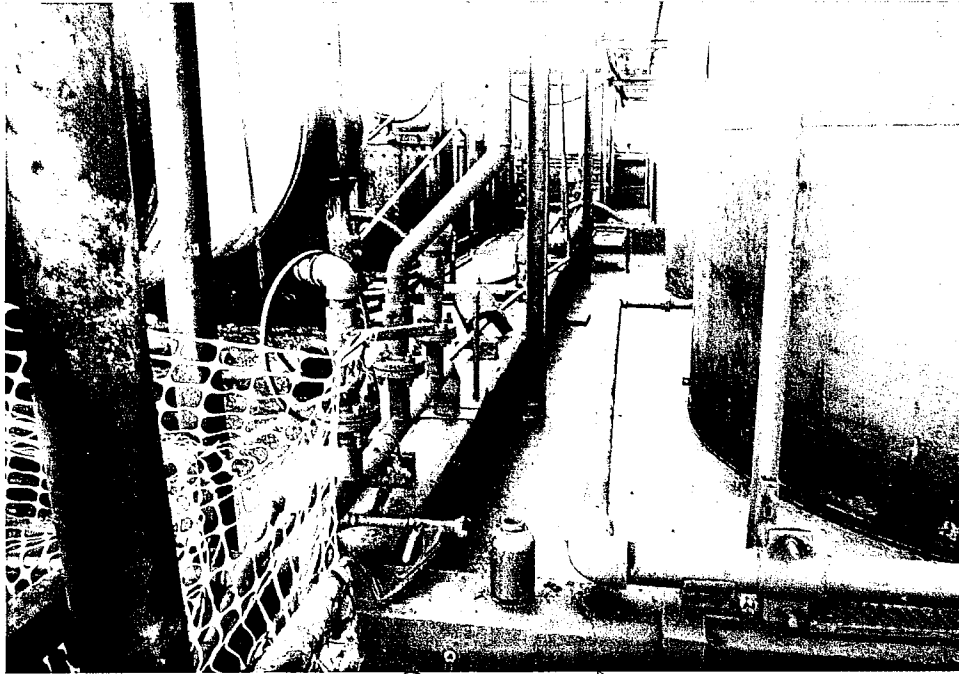


PHOTO #42

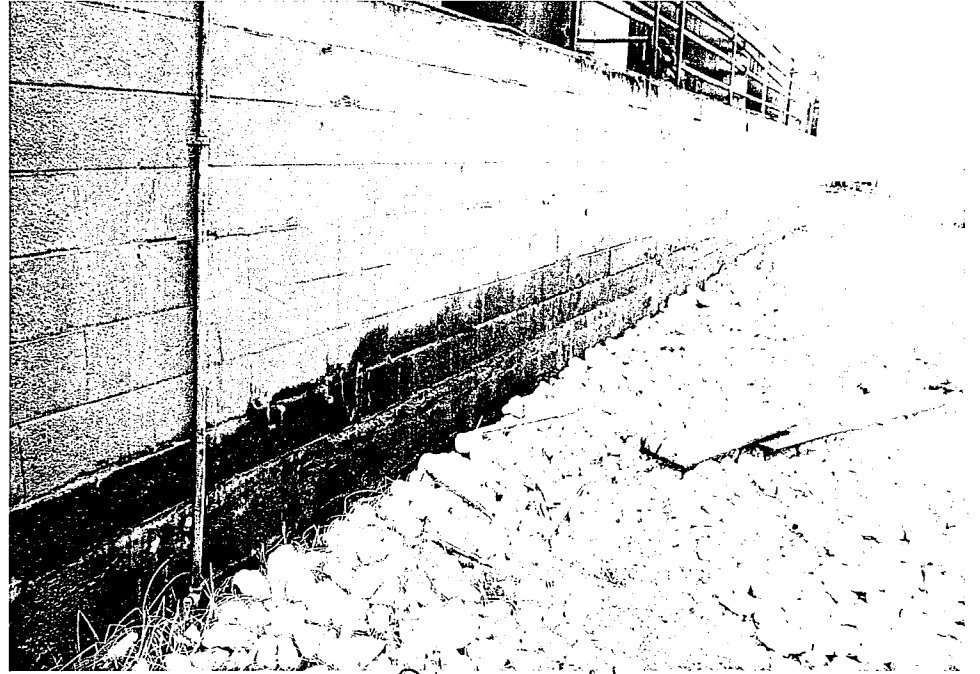


PHOTO #44



PHOTO #41

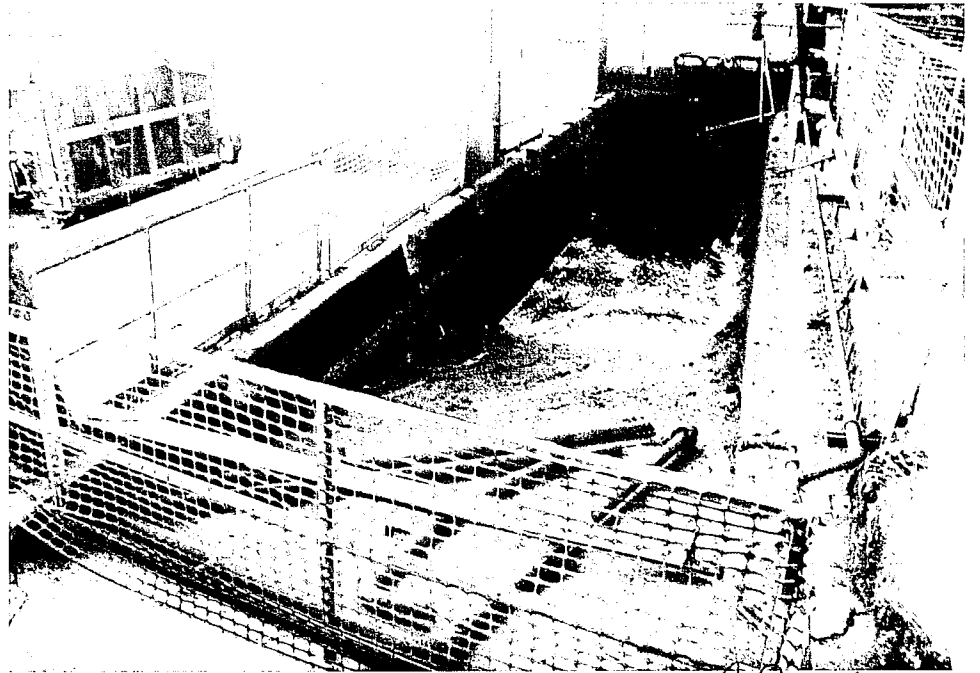


PHOTO #43

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010

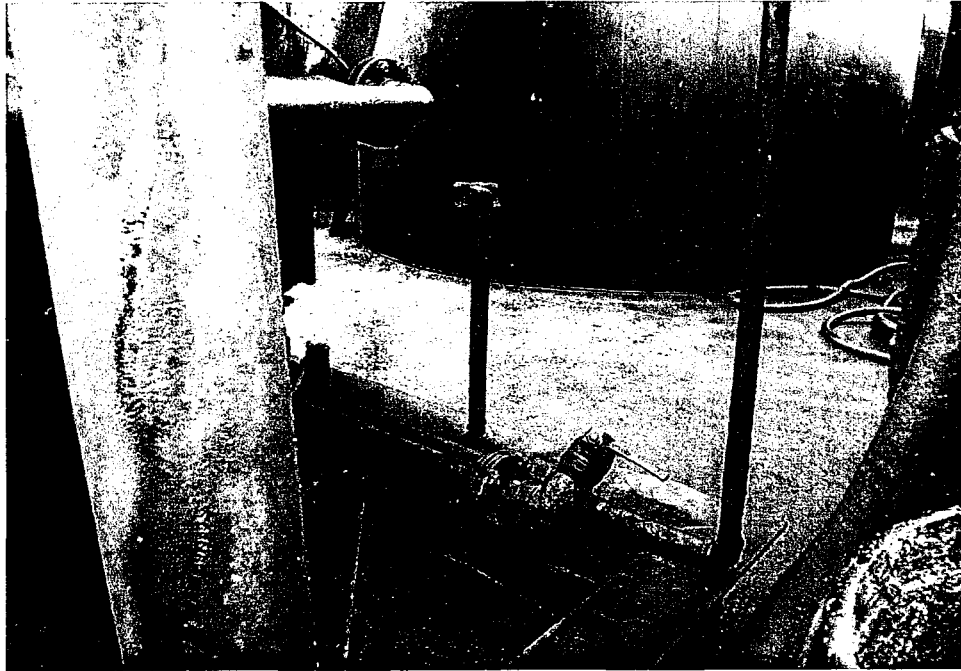


PHOTO #46

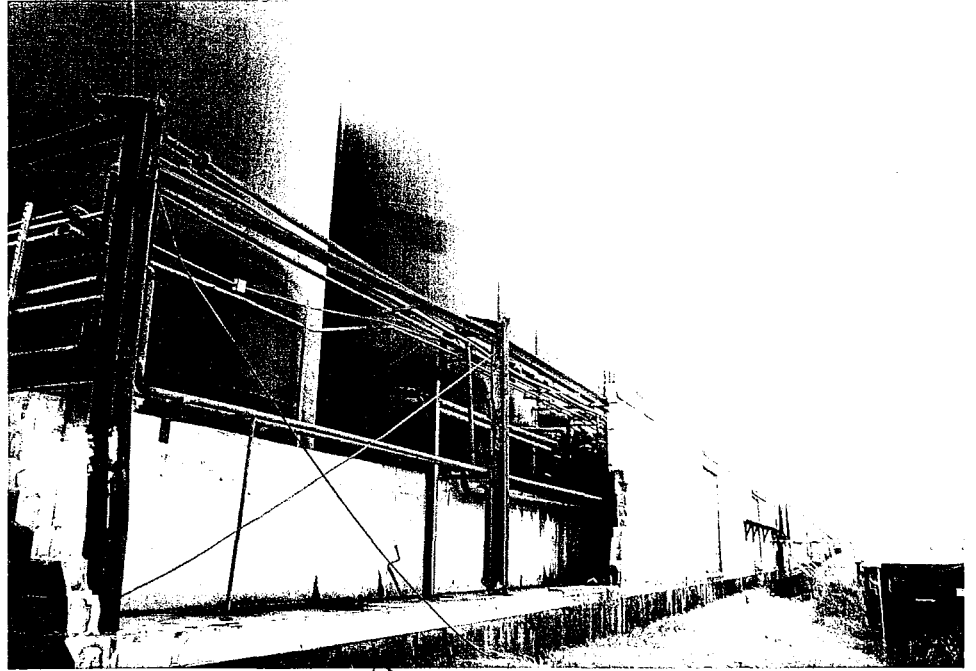


PHOTO #48

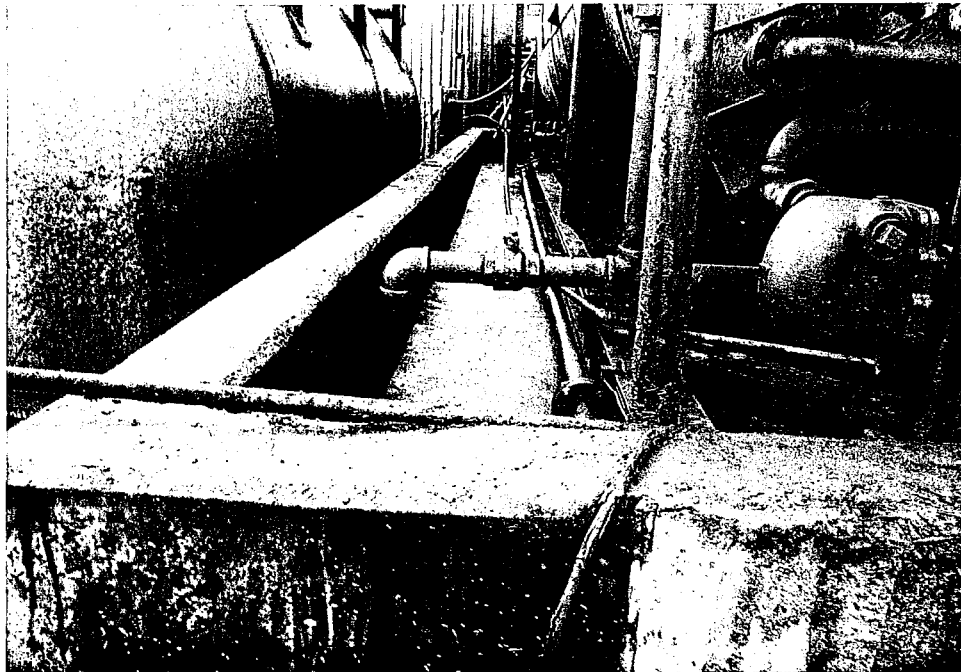


PHOTO #45

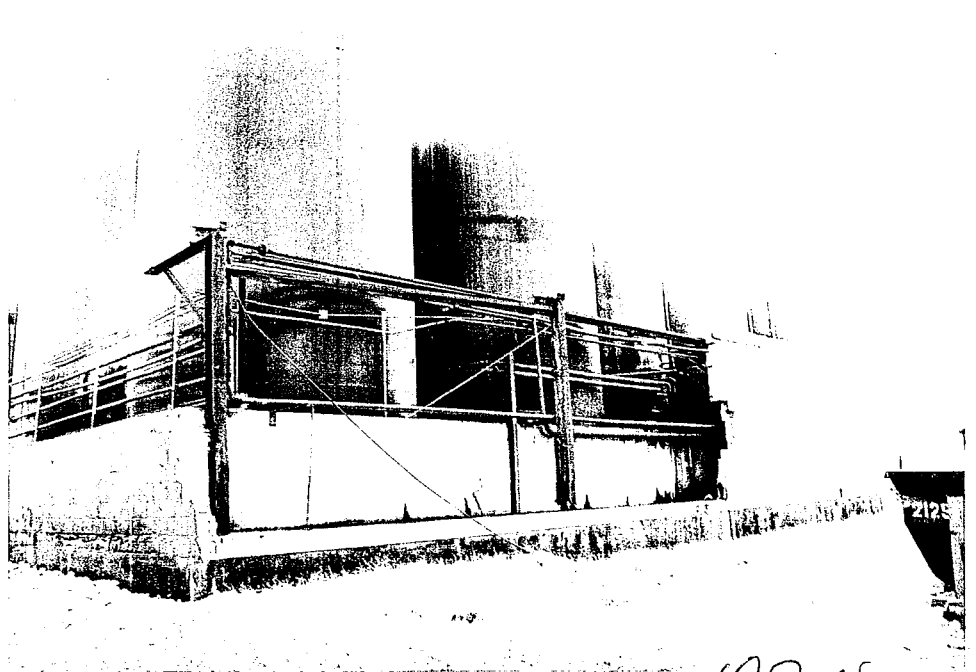


PHOTO #47

W. Salinas

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010



PHOTO #50

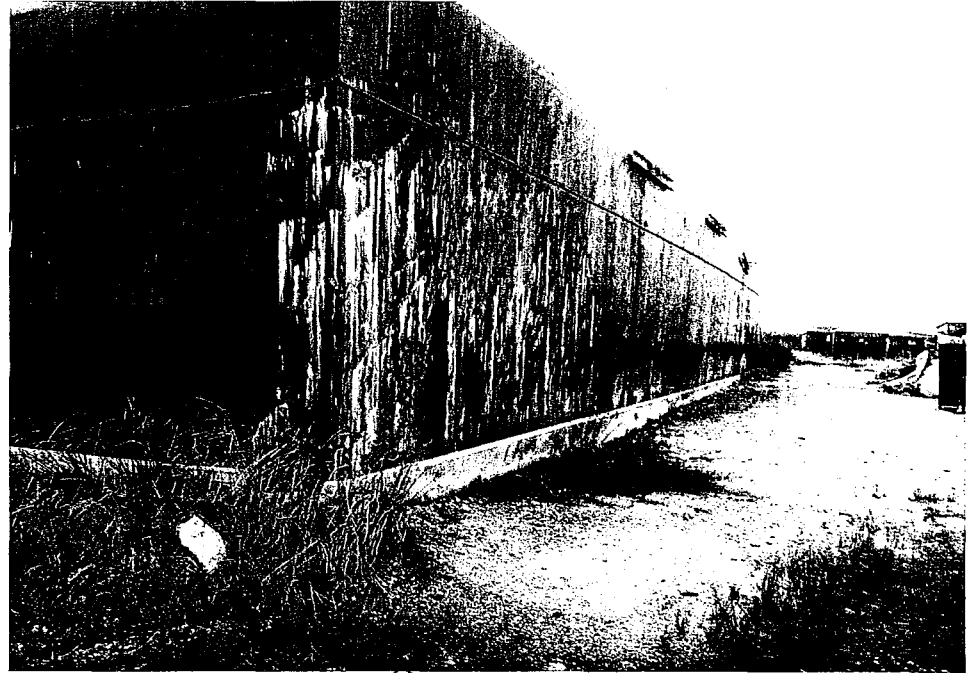


PHOTO #52



PHOTO #49



PHOTO #51

US Salinas 86

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010

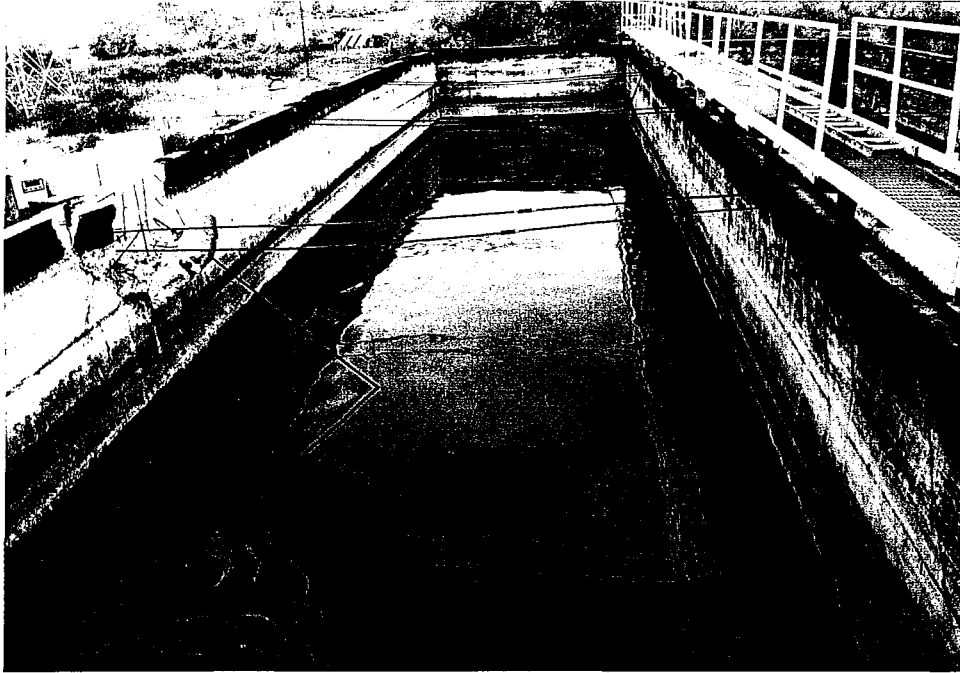


PHOTO #54

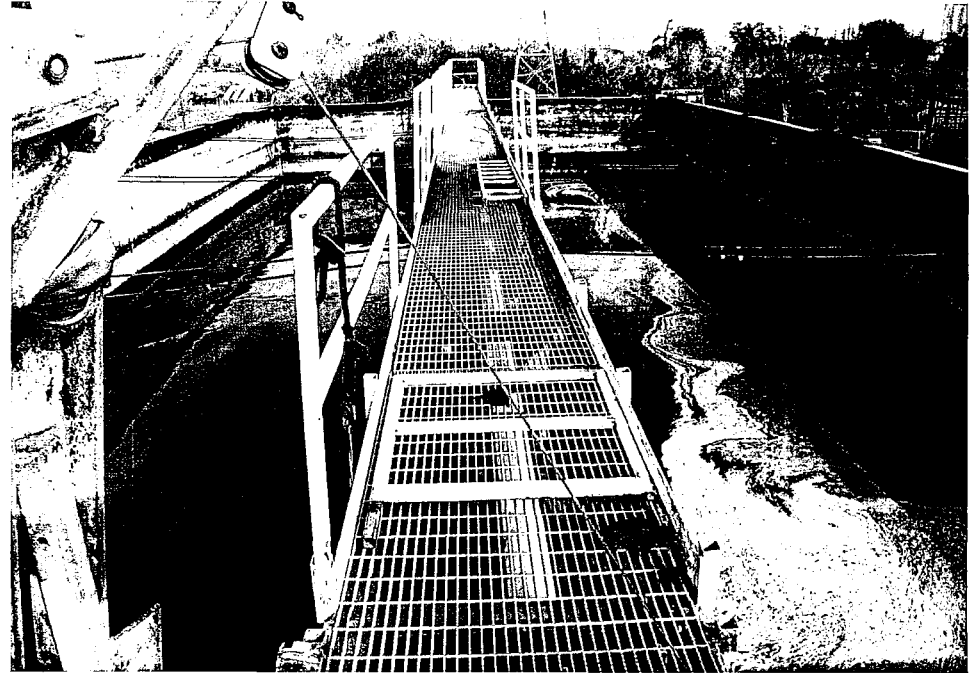


PHOTO #56



PHOTO #53

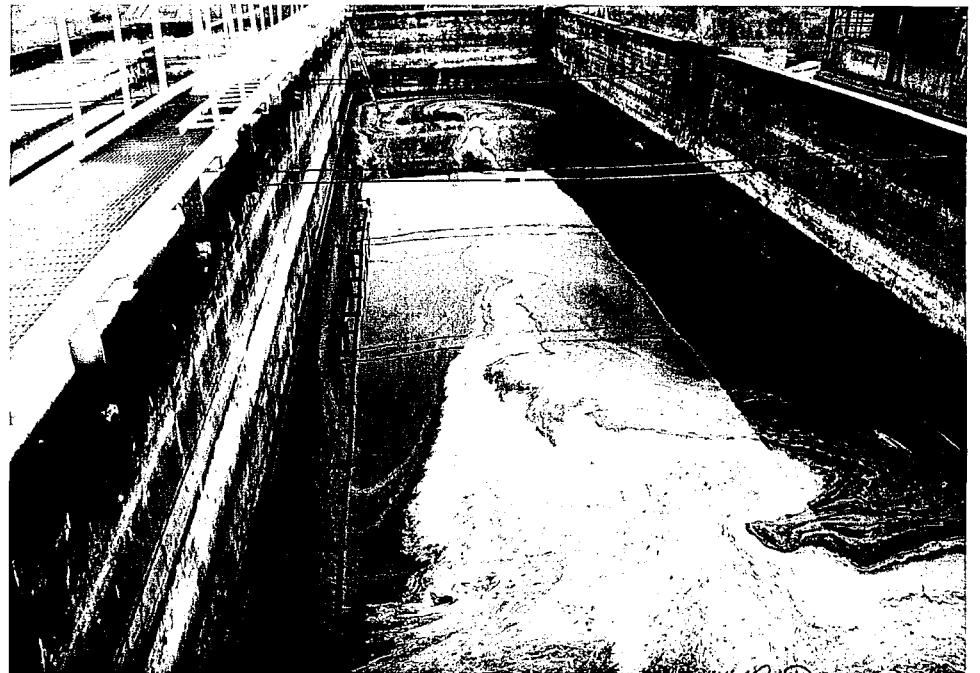


PHOTO #55

Salinas 87

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010

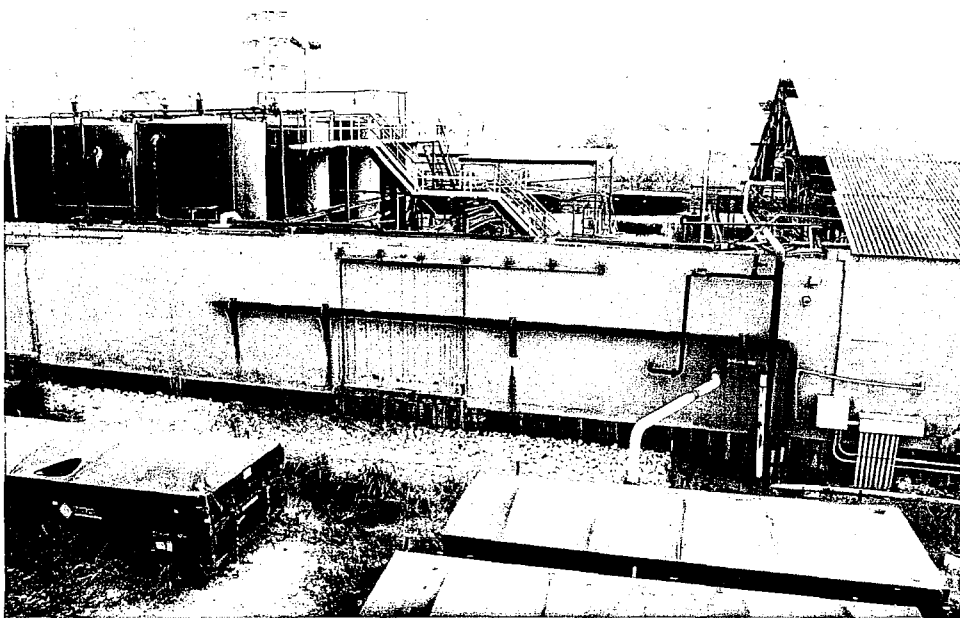


PHOTO #58



PHOTO #60



PHOTO #57

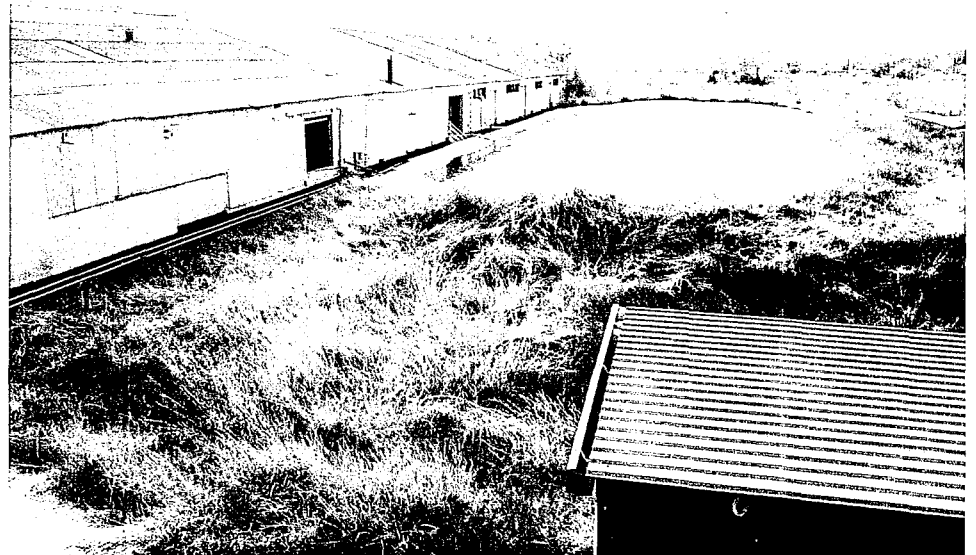


PHOTO #59

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010

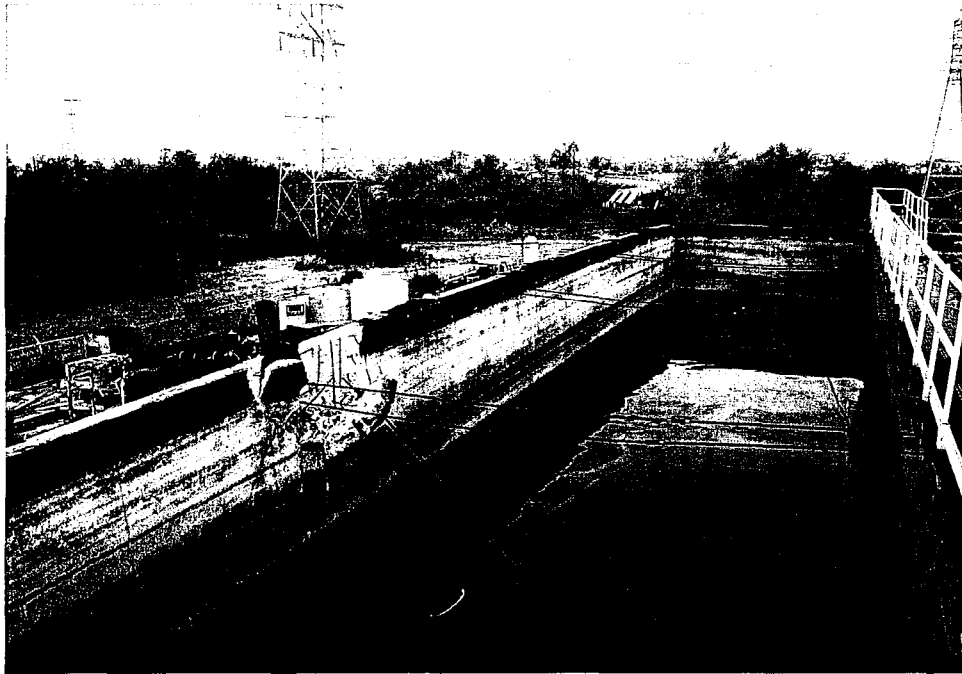


PHOTO #62



PHOTO #64

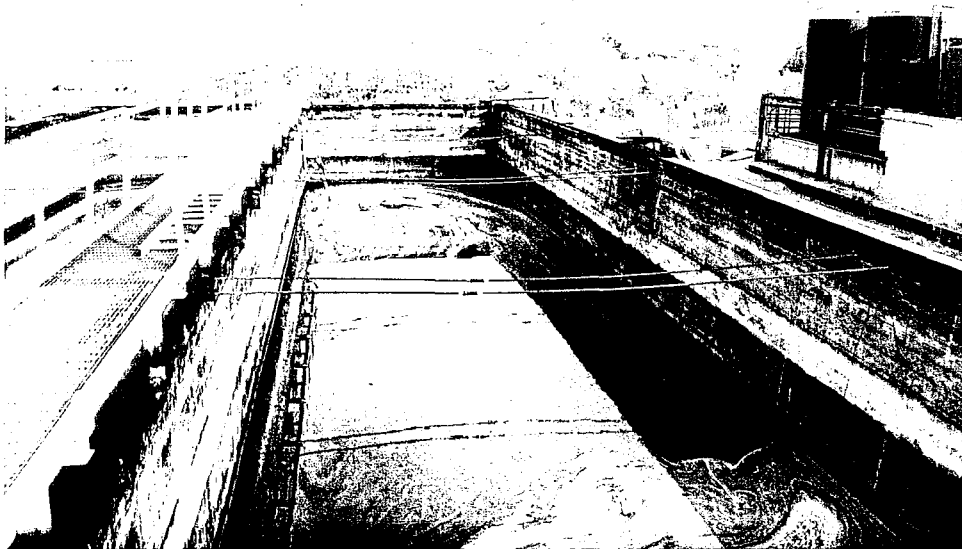


PHOTO #61

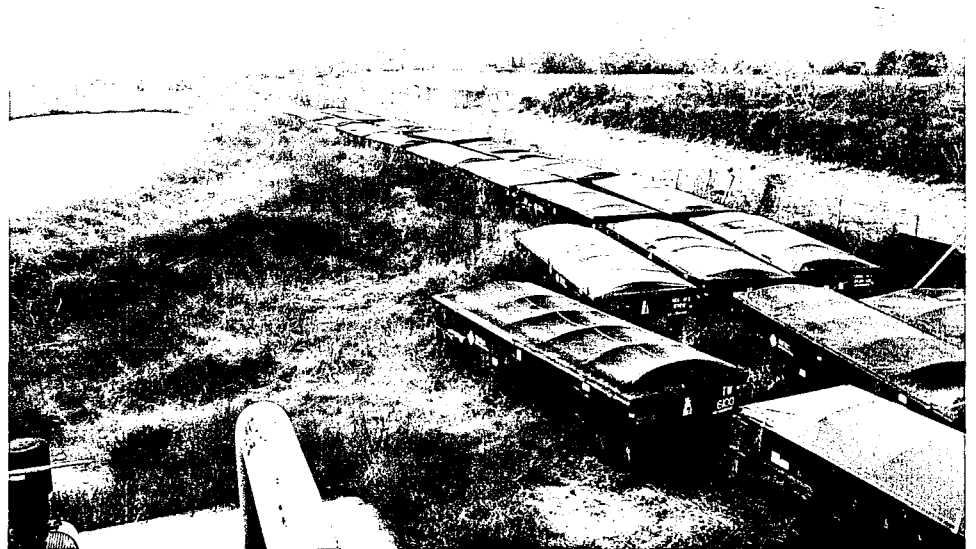


PHOTO #63

W. Salinas

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010



PHOTO #66



PHOTO #68

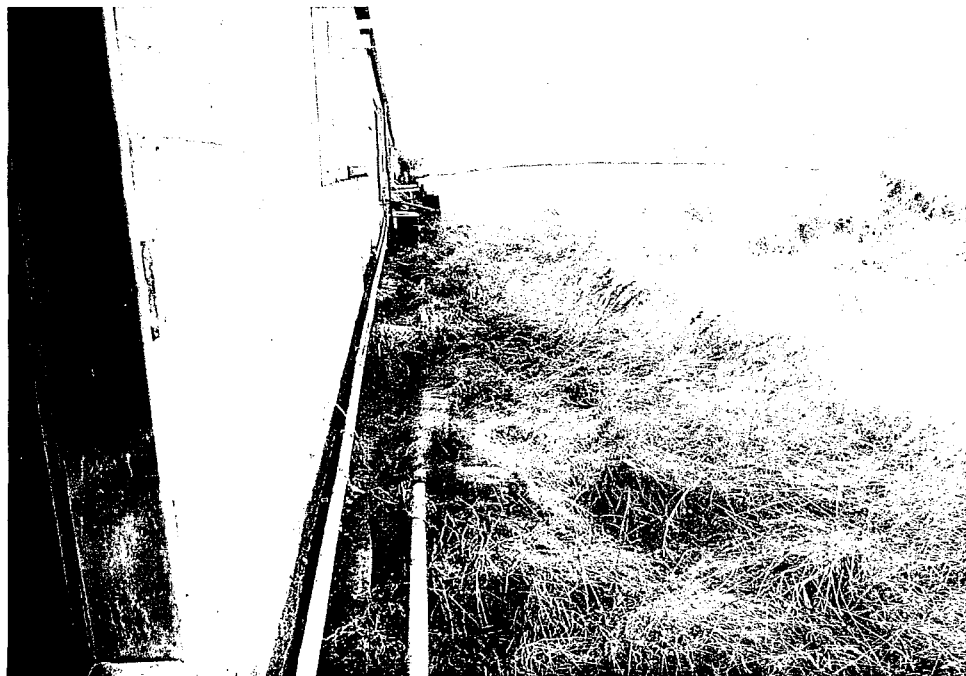


PHOTO #65



PHOTO #67

Walton 90

PHOTOGRAPHS TAKEN ON DECEMBER 24, 2010

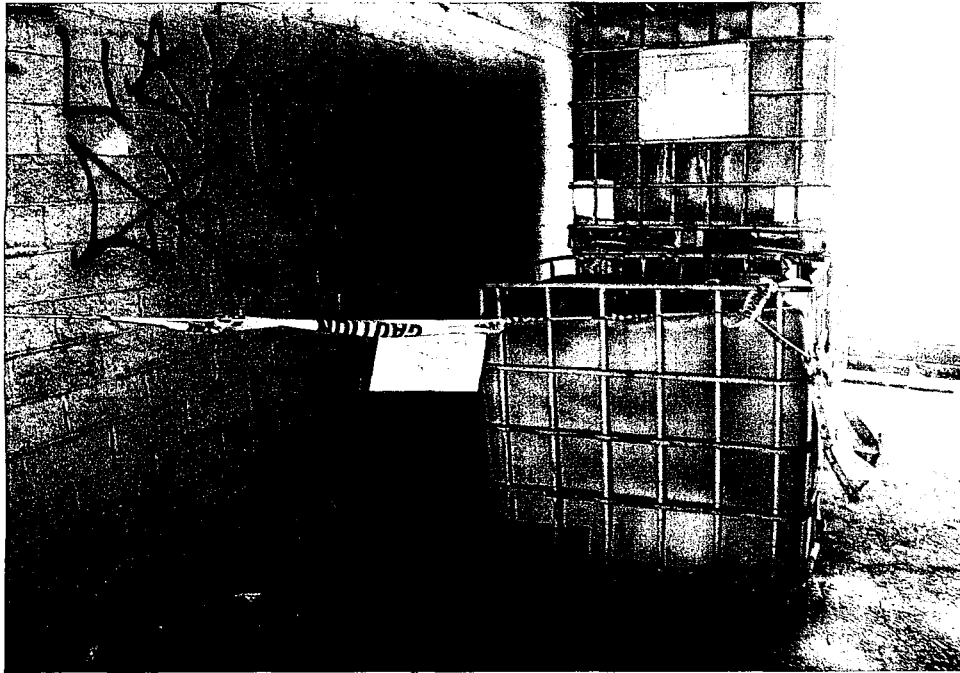


PHOTO #70



PHOTO #72



PHOTO #69



PHOTO #71

Salinas 91

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010

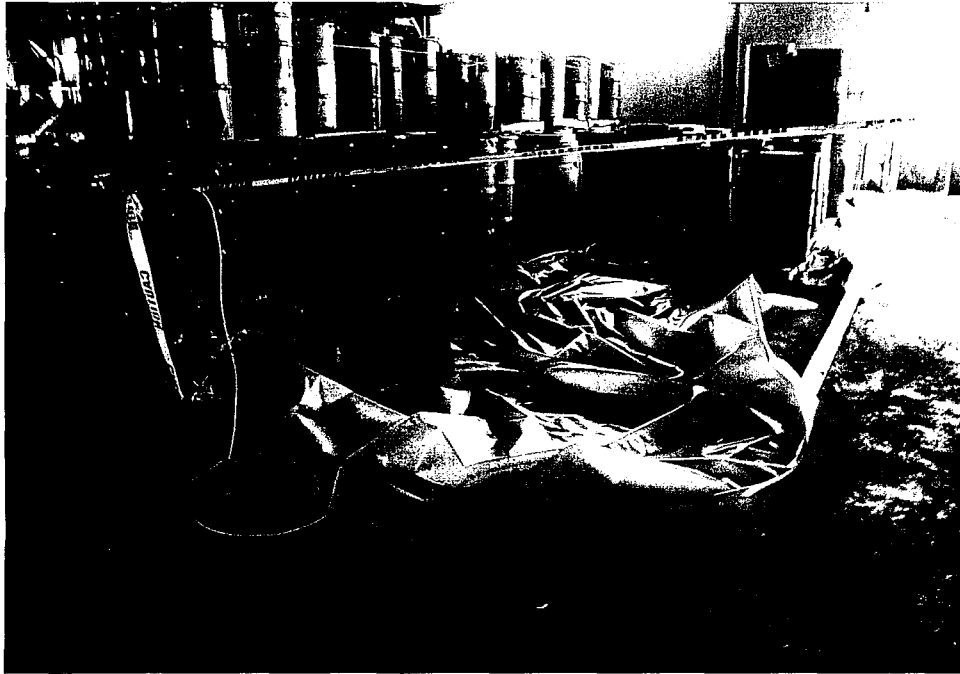


PHOTO # 74



PHOTO # 76



PHOTO # 73



PHOTO # 75

U. Salinas 2

PHOTOGRAPHS TAKEN ON DECEMBER 21, 2010



PHOTO # 78



PHOTO # 77

Salme

PHOTOGRAPHS TAKEN ON JANUARY 28, 2011

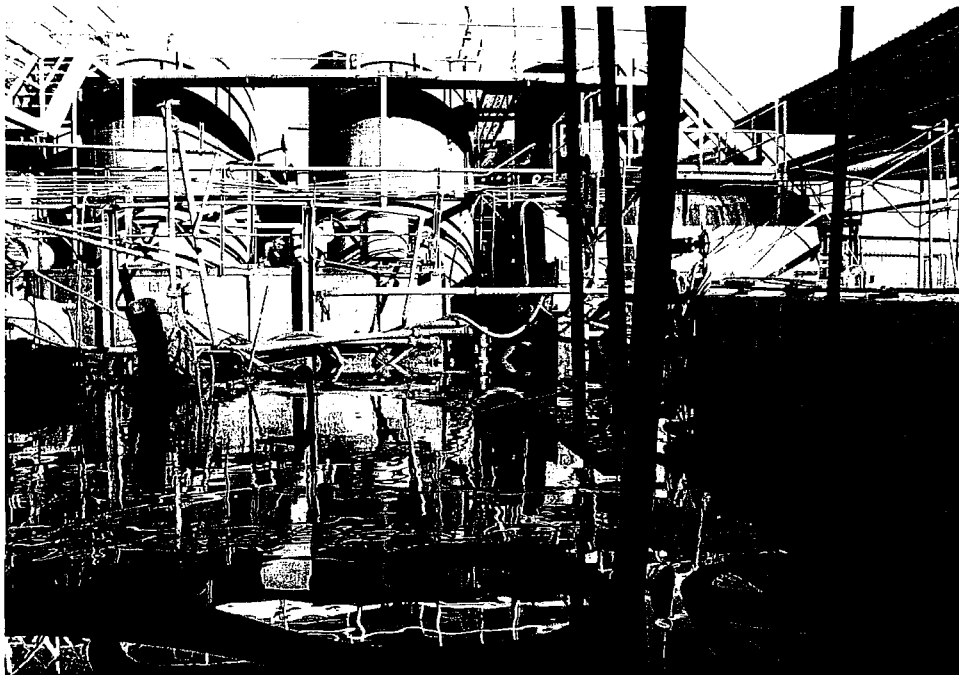


PHOTO #2



PHOTO #4



PHOTO #1



PHOTO #3

Walme 94

PHOTOGRAPHS TAKEN ON JANUARY 28, 2011



PHOTO #6

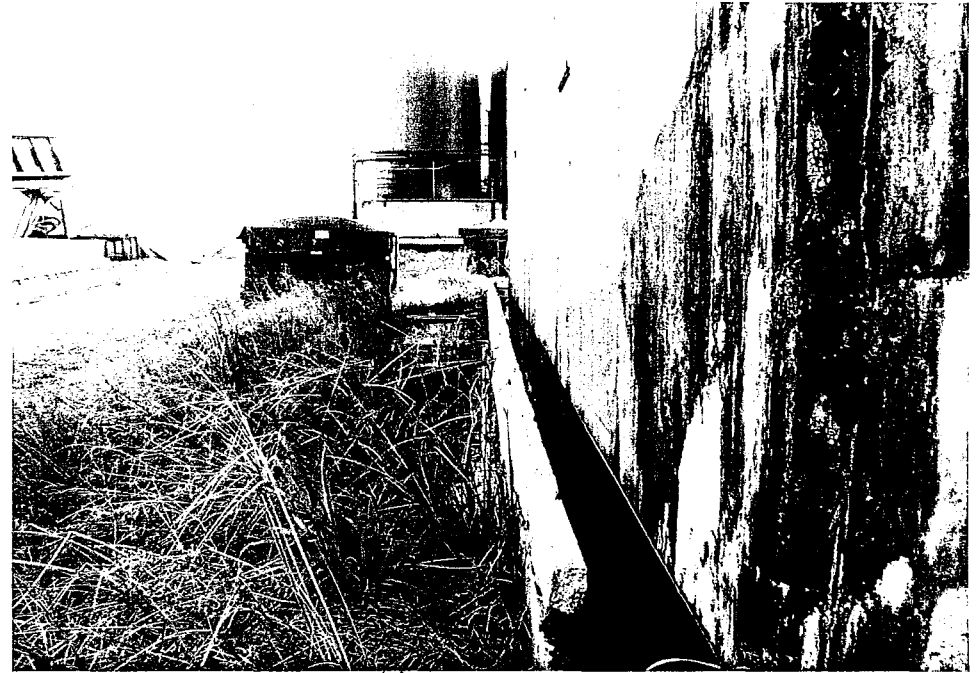


PHOTO #8



PHOTO #5

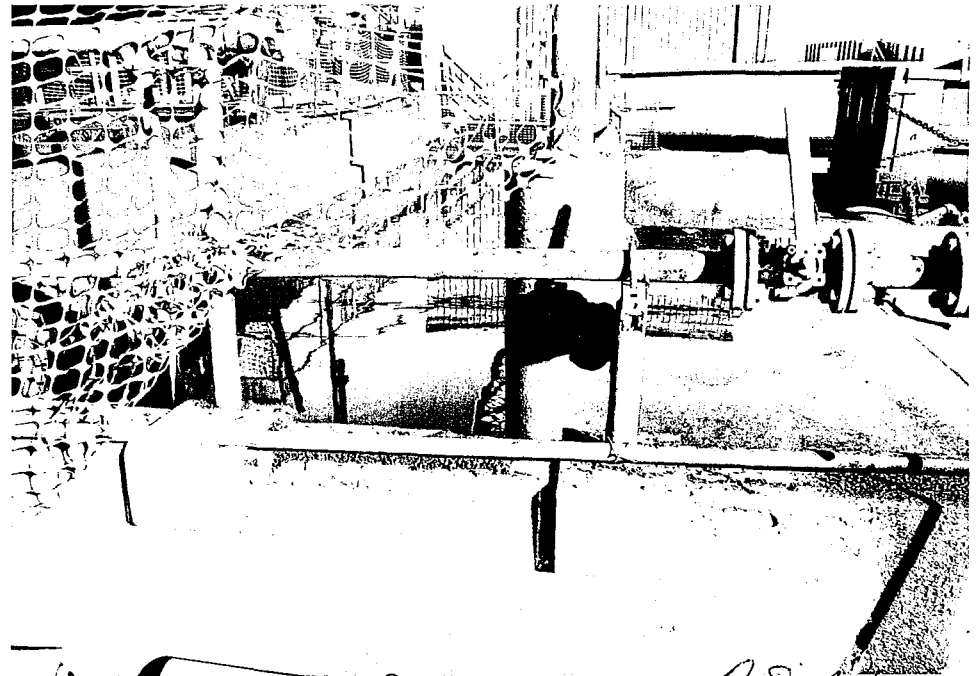


PHOTO #7

Salvador

PHOTOGRAPHS TAKEN ON JANUARY 28, 2011



PHOTO #10



PHOTO #9

Salinas

Reference 19:

**Espey, Huston & Associates, Inc. Phase 2A Environmental Site Assessment
Results for 400 North Richey Street, Pasadena, Texas. Report date October 30,
1991. Written and signed by R. Gary Montgomery, P.E. (Vice President).
5 pages.**

ESPEY,
HUSTON &
ASSOCIATES, INC.

Engineering & Environmental Consultants

October 30, 1991

Mr. David L. Clark
General Manager, Depot Operations
Hoyer USA, Inc.
2 Northpoint Drive, Suite 160,
Houston, Texas 77060

EH&A Job No. 13633

Dear Mr. Clark:

Re: Phase 2A Environmental Site Assessment Results

Espey, Huston & Associates, Inc. (EH&A) has completed the Phase 2A environmental site assessment authorized by you on September 23, 1991, for the 12.2-acre tract located at 400 North Richey Street, Pasadena, Texas. The following sections document the results of this investigation. A site location map is included as Figure 1.

1.0 PHASE 2A ENVIRONMENTAL SITE ASSESSMENT RESULTS

1.1 TEXAS WATER COMMISSION FILE REVIEW

On Friday, October 11, 1991, EH&A reviewed the TWC files for the following facilities which surround the subject site at 400 North Richey in Pasadena, Texas: (1) Simpson Paper (formerly Champion Paper), (2) Gulf Coast Authority Washburn Tunnel Facility, and (3) Houston Lighting and Power. No records were found for AES Cogeneration Plant.

Gulf Coast Waste Disposal Authority (GCWDA), Washburn Tunnel
SW No. 01740, NPDES No. 0052591

The facility is authorized to treat and dispose of wastes from a centralized wastewater treatment plant located on the south bank of the Houston Ship Channel (HCS Segment 1007) approximately 1/2 mile west and upstream of the Washburn Tunnel in Harris County. The plant treats and disposes of wastes from the following sources:

Simpson Paper Mill	26.165
Lyondell Petroleum Ref.	8.09
Crown Central Petroleum Ref	2.1
Air Products	0.97
AES Deepwater	0.85
GATX-Pasadena	0.378
GATX-Deer Park	0.251
Mobay	0.112
Goodyear	0.051
City of Pasadena	1.089
Vince Bayou Receiving	0.021
TOTAL	39.178 MGD

ESPEY, HUSTON & ASSOCIATES, INC.

Mr. David L. Clark
Page 2
October 30, 1991

Records indicate facility is undergoing discharge permit renewal process at this time. No violations noted.
No groundwater contamination incidents discussed in files.

Simpson Paper
SW No. 30582, TXD 020802583

Formerly Champion Paper, this facility's records contain reports of several spills relating to the Recover-Causticizing-Byproducts (RCB) sewer line, which transports black liquor. The line was repaired. Other records show the facility requesting a waste code for TPH-contaminated soils which were removed from the area of the steam boilers.

The facility's NOR is dated May 26, 1976. Wastes generated at the site include the following Class I wastes:

- Asbestos
- PCB-contaminated liquids
- Paper additives
- PCB-contaminated solids
- Asbestos insulation
- PCB transformer
- PCB oil >500 ppm
- PCB capacitor
- Lubricating oil
- Slaker sand
- HC-contaminated soil

No violations noted. No groundwater contamination issues discussed in the facility files.

Houston Lighting and Power
HW 31263

The correspondence deals mostly with waste shipments off-site, such as muriatic acid, PCB wastes, and TPH-contaminated soils. No records of violations or groundwater contamination issues.

Wastes generated on the site include the following Class I and Class II:

- PCB solids
- PCB liquids
- Solvents D001
- Paint thinner F003, F005, D001
- Waste oil
- Oil-contaminated solids
- Paint sludge D008
- PCB transformer oil 50-500 ppm
- PCB capacitor

E. HUSTON & ASSOCIATES, INC.

Mr. David L. Clark
Page 3
October 30, 1991

PCB-contaminated containers
Diesel D001
Gasoline and water D001
Oil filters
Oily trash
Sulfuric acid D002
Solvent paraffinic
Sandblasting grit D008
Antifreeze
Capacitors
Capacitors, Non-PCB
Asbestos
D001, characteristic of ignitability D001, D018, D039
Asphalt D001
Paint, dry D001, D004, D008
Paint Waste D001
Mercury U151
Mercury-contaminated soil D009

1.2 SITE SOILS AND GROUNDWATER INVESTIGATION

1.2.1 Sampling Technique and Shallow Hydrogeology

On September 30, 1991, EH&A obtained samples of the soils adjacent to the vault for laboratory analysis. Three borings were advanced with a truck-mounted Diedrich D-50 drilling rig, utilizing hollow stem augering methodology. The soils samples were obtained utilizing split spoon sampling devices. Two-foot split spoon samples were taken continuously from 10 feet below grade to the total depth of the boring in boring B-1, and from 9 feet to total depth in B-2 and B-3. Following removal of the sample from the split spoon, a composite sample of each one-foot interval, except as noted below, were placed in laboratory-cleaned sample containers. As groundwater was encountered at approximately 11 feet below grade, a set of groundwater samples was obtained from B-1. Note that this sample was obtained from the open borehole. All drilling and sampling equipment were thoroughly steam-cleaned between borings to minimize cross-contamination potential. The soil boring locations are shown on Figure 2.

The first boring, B-1, was advanced to the depth of the bottom of the vault, approximately 16 feet below grade. A split spoon sampler was then pushed to a total depth of 18 feet. A saturated silty clay was encountered at approximately 11 feet below grade. This groundwater-bearing stratum is approximately 0.5 feet thick. Boring B-2 was advanced to 13 feet below grade, and the final sample was pushed to 15 feet. A saturated sandy silt was encountered at approximately 11 feet. Fill material was encountered in B-3 to a depth of 12 feet, and groundwater was encountered at 12 feet, in a clayey silt stringer. The total depth of B-3 was 13 feet, and the final sample was obtained by pushing the split spoon sampler to a depth of 15 feet. Copies of the boring logs are included as Attachment A.

Y. FILSON & ASSOCIATES INC.

Mr. David L. Clark
Page 4
October 30, 1991

The encountered materials are typical of the Beaumont Formation which consists of plastic and silty clay with numerous relict sand channels and overbank deposits. These types of geomorphologic features form discontinuous sand and silt stringers and spaly type deposits which are the groundwater-bearing units in the shallow subsurface in the southeast Houston area. These relict sand channels are generally restricted in the lateral and horizontal directions. They are considered to be hydraulically connected to each other and to the bayous and the Houston Ship Channel. The groundwater at these shallow depths is typically brackish.

The uppermost groundwater-bearing zone in the vicinity of the vault occurs approximately 11 to 13 feet below grade and consists of a clayey to sandy silt. Groundwater flow direction is probably to the north-northwest, toward Vince Bayou and the Ship Channel.

1.2.2 Analytical Results

Although all soils samples were placed into sample containers, only those samples from the saturated zone were submitted to the laboratory for analysis. These samples were chosen for analysis as the saturated zone afforded the most likely path for contaminant migration from the source.

Due to the unknown nature of the types of materials which may have been handled at the facility, the soils and groundwater samples were analyzed for a suite of organic and metallic constituents, including volatile and semivolatile organics, pesticides, and copper and arsenic. The results of these analyses are summarized on Table 1. Note that only the constituents which were detected above the analytical detection limits have been included in this table. A copy of the complete laboratory report is included in Attachment B.

Various organic constituents have been quantified in the soils samples. Both di-n-butyl phthalate and diisobutyl phthalate are common laboratory contaminants, and their detection in the soils samples is probably due to laboratory contamination. There were numerous pesticides identified in both B-2 and B-3 soil samples and the B-1 groundwater sample. Some of these pesticides, including Endrin, Lindane and Methoxychlor, are regulated as hazardous waste under the Resource Conservation and Recovery Act (RCRA) if the concentrations in an extract of the contaminated material exceed certain regulatory limits. Additional soils and groundwater testing is necessary to determine if these limits have been exceeded at the site. Others, including 4,4' DDD, 4,4' DDE, 4,4' DDT and Dieldrin are regulated as hazardous constituents under RCRA. Alpha BHC, Beta BHC and Delta BHC are isomers of Lindane, and Endrin Aldehyde is a metabolite of Endrin. The groundwater sample and the soil sample from B-3 also contain various organic constituents which appear to be solvent and resin related compounds.

Both arsenic and copper were detected in the soil and groundwater samples. Copper was found at fairly low levels and may not be indicative of a contamination problem. Arsenic was quantified at levels exceeding 6,000 parts per million (ppm) in the soil sample from B-3 and was quantified at 7 ppm in the groundwater sample. This level in the groundwater sample exceeds the regulatory limit for arsenic, and thus the groundwater may be considered a hazardous waste.

SPEY, HUSTON & ASSOCIATES, INC.

Mr David I Clark
Page 5
October 30, 1991

2.0 CONCLUSIONS

2.1 TEXAS WATER COMMISSION FILE REVIEW

Based on the TWC file review, it appears that there have been no reported instances of groundwater contamination at any of the facilities investigated.

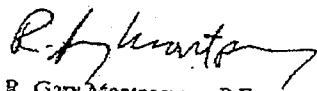
2.2 SITE SOILS AND GROUNDWATER INVESTIGATION

The site is underlain by clays and silts of the Benumont Formation. There appears to be a continuous clayey to sandy silt stringer at about 11 to 13 feet below grade in the immediate vicinity of the vault.

The soils to the north and south of the vault are contaminated with pesticides and arsenic. Low levels of pesticides, and a fairly high concentration of arsenic have been detected in the groundwater obtained from boring B-1.

If you have any questions regarding this report or if we can be of further assistance to you, please do not hesitate to call either David Patterson or Carol Boucher at (713) 781-8800.

Very truly yours,



R. Gary Montgomery, P.E.
Vice President

RGM:CB/SC

c David Patterson, P.E., EH&A
Carol Boucher, EH&A

Reference 20:

Espey, Huston & Associates, Inc. Phase 2B Environmental Site Assessment Results for 400 North Richey Street, Pasadena, Texas. Report date November 14, 1991. Written and signed by R. Gary Montgomery, P.E. (Vice President) and David A. Patterson, P.E. (Project Manager). 3 pages.

ESPEY,
HUSTON &
ASSOCIATES, INC.
Engineering & Environmental Consultants

November 14, 1991

Mr. Charles Shook

CAVESBUD SA
901 North Richey Street
Pasadena, Texas 77469

EH&A Job No. 13672

Dear Mr. Shook:

Re: Phase 2B Environmental Site Assessment Results

Espey, Huston & Associates, Inc. (EH&A) has completed the Phase 2B environmental site assessment authorized by you on October 10, 1991, for the 12.2-acre tract located at 400 North Richey Street, Pasadena, Texas. The following sections document the results of this investigation.

Sampling

On October 14, 1991, EH&A conducted a site visit to obtain samples from the vault and tank previously identified at the facility. During this visit a below-grade pit was also discovered inside the warehouse. EH&A, with the concurrence of Mr. David Clark, Hoyer USA, modified the scope to include sampling the pit contents.

The tank is located within the vault, which is filled to the top with water. The top of the tank is open along most of its length allowing for direct access to the bottom of the tank. The depth of the vault was found to be 16'10", while the tank bottom was at a depth of 16'4".

In the tank and the vault, the samples were initially attempted to be acquired by scooping the sludge off the bottom with a polyethylene sludge dipper. The sludge on the bottom was not thick enough to obtain a sufficient quantity of the material for analysis. Samples were then obtained by suction utilizing a copper pipe. Samples were obtained from several locations in the vault and in the tank and composited to two single samples, one from each unit for laboratory analysis.

The depth to the top of liquid in the pit was approximately 3 feet below the floor slab. The total depth of the liquid in the pit was approximately 7'9". The liquid within the pit was separated into three primary layers: "sludge," water, and light oil.

A composite sample, with material from each layer, was taken with the sludge dipper. The samples from all three locations were then delivered to NDRC Laboratories for analysis. Figure 1 shows the locations of the three units sampled.

Analytical Results

The samples from the vault and tank were analyzed for the heavy metals arsenic and copper, volatile and semi-volatile organics, and pesticides. In the tank, only the metals arsenic and copper were detected,

BRY, HUSTON & ASSOCIATES, INC.

Mr. Charles Shook
Page 2
November 15, 1991

while in the vault the pesticides 4,4'-DDE and Dieldrin were also found. The results of these analyses are summarized on Table 1. Note that only the constituents which were detected above the analytical detection limits have been included in this table. A copy of the complete laboratory report is included as an attachment to this report.

The results indicate that the tank was probably cleaned at the time COVESUD acquired the property, as we had been informed. Analytical results from soil borings taken immediately outside of the vault indicate that elevated levels of arsenic, copper, and pesticides are present in the soil and groundwater and appear to have originated from the tank or vault. (A complete discussion of the soils and groundwater sampling program and results can be found in the report prepared by EH&A for Hoyer USA, Inc., dated October 30, 1991).

Due to the unknown nature of the type of materials which may have been handled inside the facility, the sample from the pit was analyzed for a suite of organic and metallic constituents, including volatile and semi-volatile organics, copper and arsenic, and total petroleum hydrocarbons. Both arsenic and copper were detected in the sample. The results of these analyses are summarized on Table 2. A copy of the complete laboratory report is included in the attachment.

Arsenic was quantified at a level of almost 2,500 mg/Kg. The total petroleum hydrocarbons were detected at a level of 15,000 mg/l. There were several organic compounds quantified in the pit sample, including 4-Methylphenol, 2,4-Dimethylphenol, Phenanthrene, Ethylbenzene, and 4-Ethylphenol.

In addition to the constituents specifically requested, EH&A requested that NDRC identify other spikes present in the gas chromatograph (GC) analyses. Twenty-one other compounds were tentatively identified, fifteen of which are decanes. Decanes are a group of C-10 hydrocarbon chains.

Conclusions

It appears that the tank was adequately cleaned of all pesticide residues prior to this sampling event. The vault was probably also cleaned; however, pesticides appear to have leached into and through the concrete sides and bottom of the vault. This conclusion is substantiated by the low level of pesticides found in the water/sludge samples obtained from the vault and by the presence of these pesticides in the soils outside of the vault walls. Both 4,4'-DDE and Dieldrin are regulated as hazardous constituents under the Resource Conservation and Recovery Act (RCRA).

The pit inside the warehouse contains decane compounds. These types of compounds would likely act as a solvent for animal fat and the oil may have been used to remove the fats from the hides prior to export.

Under RCRA, if an extract of a waste material contains certain hazardous constituents in excess of their regulatory limit, the material is regulated as a hazardous waste. The analytical results of the three samples indicate that the contents of each of the units substantially exceeds the regulatory limit of 5 mg/Kg (ppm) for arsenic. To determine if these water/sludge mixtures are hazardous due to arsenic, additional samples would need to be obtained and analyzed for arsenic utilizing the Toxicity Characteristic Leaching Procedure (TCLP).

EH&A, HUSTON & ASSOCIATES, INC.

Mr. Charles Shook
Page 3
November 15, 1991

Recommendations

EH&A recommends that a soils and groundwater investigation be conducted at the site to fully define the rate, extent, and concentrations of hazardous constituents in the soil and groundwater, and to characterize the contents of the tank, vault, and pit with regard to RCRA regulations.

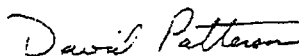
If you require further assistance with this project, EH&A would be pleased to prepare a proposal defining a scope of services and cost and schedule to implement the recommendations presented above.

If you have any questions regarding this report, please call David Patterson or Carol Boucher at (713) 781-8800.

Very truly yours,



B. Gary Montgomery, P.E.
Vice President



David A. Patterson, P.E.
Project Manager

RGM:DAF/sc

cc Carol Boucher - EH&A
David Clark - Hoyer USA, Inc.

Reference 21:

**Texas Water Commission. Notice of Solid Waste Violations for Covesud, S.A.
Letter dated October 7, 1992, Written by Thomas W. Weber. 4 pages.**

John Hall, Chairman
Pam Reed, Commissioner
Peggy Garner, Commissioner



TEXAS WATER COMMISSION

PROTECTING TEXANS' HEALTH AND SAFETY BY PREVENTING AND REDUCING POLLUTION

October 7, 1992

Mr. Charles Sheok
COVESHD, S.A.
301 S. 9th Street
Richmond, Texas 77469

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. David Clark
General Manager of Depot Operations
Hoyer USA, Inc.
2 Northpoint Drive, Suite 160
Houston, Texas 77060

Re: 400 North Ritchie Street, Pasadena, Harris County, Texas
Solid Waste Registration No. 52123
Notice of Solid Waste Violations

Dear Sirs:

A review has been made of information which has been provided to the Texas Water Commission (TWC) pertaining to the above-referenced site. The review was undertaken to determine compliance with the Commission's rules pertaining to solid waste management. It was concluded from this review that conditions exist that we believe constitute violations of the Texas Water Code. The following area of alleged violation was observed:

Texas Water Code, §26.121 - Unauthorized Discharges Prohibited

The Texas Water Code in §26.121 states that except as authorized by a rule, permit, or order issued by the Commission, no person may commit an act or engage in any other activity which will cause the discharge or imminent threat of discharge of pollutants into or adjacent to waters in the state.

Analytical results from soil and ground-water samples collected from the above-referenced site indicate a high concentration of arsenic, a high level of total petroleum hydrocarbons, and the presence of several pesticide and organic solvent constituents.

Attached is an enclosure that includes corrective action directives (CAD) pursuant to Section §26.121 of the Texas Water Code which are intended to resolve this alleged violation. We request that you provide this Office with a detailed written plan for corrective action which addresses each directive of the enclosed CAD to be submitted within the timeframe specified. You are advised that failure to comply with these corrective action directives, including

Mr. Charles Shook & Mr. David Clark
Re: 400 North Ritchie Street
Page 2 of 4

the specified timeframes for corrective action implementation, and to adequately remedy all of the alleged violations described above may result in the initiation of formal enforcement action by this agency which could lead to administrative penalties of up to \$10,000 per day assessed against COVESUD and Hoyer USA. An on-site inspection or review of records will be conducted at the appropriate time to verify compliance.

A copy of the 31 TAC Chapter 335 regulations can be obtained for a fee from Agency Information Consultants, Inc., P.O. Box 7181, Austin, Texas, 78768, telephone number 800/477-2424, or from Research and Planning Consultants, 3200 Red River Street, Suite 302, Austin, Texas, 78705, telephone number 800/252-3711. The Code of Federal Regulations (40 CFR Parts 260-299) is available from the U.S. Government Printing Office, Texas Crude Building, 801 Travis Street, Houston, Texas, 77002, telephone number 713/228-1187, or from the U.S. Government Printing Office, Room 1C-50, Federal Building, 1100 Commerce Street, Dallas, Texas, 75242, telephone number 214/767-0076.

If you have any questions regarding these matters, please contact Brenda Lint of the Industrial and Hazardous Waste Enforcement Section at 512/908-2579.

Sincerely,

Thomas W. Weber

Thomas W. Weber, Head
Ground Water Enforcement Team II
Enforcement Section

Anne C. Dobbs, Manager
Enforcement Section
Industrial and Hazardous Waste Division

Enclosure

BL/bl

cc: TWC District 7 Office - Houston
Lydia Gonzalez-Gromatzky, Senior Attorney, TWC Legal Services
Division
Janice Earley, Enforcement. TWC I&HW Division

Mr. Charles Shook & Mr. David Clark
Re: 400 North Ritchie Street
Page 3 of 4

CORRECTIVE ACTION DIRECTIVES
RE: North Ritchie Street (the "Site")
SOLID WASTE REGISTRATION NO. 52123

1. Within forty-five days from the date of this letter, COVESUD and Hoyer, USA shall submit a Site Investigation Plan (Plan) to this Office for review and approval or approval with modifications. The Plan shall contain, but is not limited to providing, provisions to perform the following activities:
 - a. Determine the lateral and vertical extent and the degree of soil contamination related to past and/or present operations in the area immediately adjacent to and in the vicinity of the vault and pit located at the above-referenced Site.
 - b. Determine the background quality of ground water and the ground-water gradient in the vicinity of the Site as well as whether the ground water at the locations discussed in Item 1.a. above is contaminated with constituents related to past and/or present operations at this facility.
2. In addition to the above provisions, the Plan shall contain, but is not limited to providing, the following information:
 - a. The methods of investigation and a detailed description of all procedures that will occur during the site investigation including, but not limited to, sampling and analysis addressing the number, depth (if applicable), and locations of samples, constituents to be analyzed, justification for the constituents to be analyzed, methods of analysis, decontamination of equipment, and chain of custody procedures.
 - b. A site characterization which provides a description (based upon literature review and site-specific information) of the local soil, geology, and ground-water conditions.
 - c. A water well inventory which locates, on a current U.S.G.S. topographic map, all water wells within one mile of the boundaries of the property. The inventory shall further provide (if available), for each well located, the well owner name, well construction data, screened interval, producing geologic unit(s), total depth, water quality data, current and historical use(s), and any other available, relevant information.
 - d. A site map drawn to scale showing the locations for all current and historical facility structures, operations, and storage areas, all areas of visible and suspected contamination, proposed sampling locations, all adjacent properties (including property owner and utilization of the property), all significant topographic features in the

Mr. Charles Shook & Mr. David Clark
Re: 400 North Ritchie Street
Page 4 of 4

- vicinity of the site, and locations of both on-site and adjacent utilities, structures, roads, and surface drainage. If several maps are used, all maps should be drawn to the same scale. All components and symbols (i.e., legend, scale, north arrow) for each map should be legible and clearly identified.
- e. Original photographs of the property and surrounding areas. All photographs shall be labeled to include the date (or approximate date) of the photo, the area of the property to which the photo pertains, and the direction of the view of the photo.
 - f. An outline, with discussion, of the topics, specific information, and possible recommendations to be included in a site investigation report to be submitted by COVESUD and Hoyer, USA to this Office upon completion of the site investigation.
 - g. In the event that the findings from this site investigation indicate that additional on-site or off-site investigation is necessary in order to adequately define the extent of soil and/or ground-water contamination, provisions for addressing the continued investigation of the extent of contamination shall be included in the site investigation report.
 - h. A detailed schedule for the implementation of the Plan including a deadline for COVESUD's and Hoyer, USA's submittal of the site investigation report to this Office.
3. Upon receipt of written approval or approval with modifications of the Plan by this Office, COVESUD and Hoyer, USA shall implement the Plan in accordance with the approved schedule.
 4. Based upon the results of implementation of the Plan, COVESUD and Hoyer, USA shall provide recommendations to this Office regarding necessary emergency, interim, or final remedial actions that need to be taken to safeguard human health, safety, and/or the environment.
 5. COVESUD and Hoyer, USA may seek and the Executive Director may grant an extension of any deadlines stated herein or in any other documents submitted pursuant to these corrective action directives upon submittal of a written letter showing good cause for the extension.
 6. All correspondence with this Office should be submitted in duplicate (including one original and one copy). Additional copies of all correspondence should be submitted to our District 7 Office in Houston.

Reference 22:

**EFEH & Associates. Environmental Site Assessment for Arsenic in
Groundwater at 400 North Richey Street, Pasadena, Texas. Report date August
27, 2001. 17 pages.**



EFEH & ASSOCIATES

3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

August 27, 2001

SWR # 52123

CAS DOC # 14122
PROJ. MGR. B. Wilkinson

RECEIVED

SEP 14 2001

**REMEDIATION DIVISION
Corrective Action Section**

Mr. Decker McKim
ReMax Southeast
6019 Fairmont Parkway, Suite B
Pasadena, Texas 77505

Re: Environmental Site Assessment for Arsenic in Groundwater at 400 N. Richey St., Pasadena, TX.

Dear Mr. McKim:

EFEH & Associates of Pearland, Texas has performed an environmental site assessment of the 12.2 acre property located at 400 N. Richey Street, Pasadena, Texas, for the presence of arsenic in soil and groundwater. Said property is currently occupied by two tenants. Several visits were made to the site from June 24 through July 17, 2001 for the purpose of obtaining samples by Dr. Edwin B. Smith, Jr., and Mr. Jason Sasseen of EFEH & Associates, and Mr. David Withers and his employees of Monitor Drilling.

1. INTRODUCTION

1.1 Purpose - This site assessment was performed at the request of Mr. Decker McKim of ReMax Southeast.

1.2 Special Terms and Conditions - This report is formatted to meet the recommendations of ASTM E1527 which governs Environmental Site Assessments.

1.3 Limitations and Exceptions of Assessment - No encumbrances to the on-site visit were encountered. The persons interviewed as current tenants were cooperative in answering the investigator's questions.

1.4 Limiting Conditions and Methodology Used - This site assessment follows the methodology prescribed in ASTM E1527 except where noted.

2. SITE DESCRIPTION

2.1 Location and Legal Description - The subject property is located to the West of North Richey Street.

2.2 Site and Vicinity Characteristics - The property assessed is rectangular in shape with four sides. The property is sloping. The

01

This report may not be reproduced, except in its entirety, without the express consent of EFEH & Associates. Any results or opinions expressed herein apply only to the sample tested.

EFEH & ASSOCIATES

USGS 7.5 minute topographic map (Pasadena, TX), shows the site to slope gently from Center (27 feet elevation) to East & Northeast (approximately 11-13 feet elevation).

2.3 Description of Structures, Roads, other Improvements on the Site - The subject property has two buildings currently standing. One is a warehouse. The warehouse is a rectangle and is located slightly to the rear of the property. A rail spur which ran along the rear has now been removed. The area which is outside the rail spur is overgrown with low brush. The area between the office building and the warehouse is concreted with a few areas of asphalt. The office building is located with a vehicular scale to the front of the property. Two grassy areas are located in the front, one on each side of the entry road.

2.4 Information Reported by User Regarding Environmental Lien or Specialized Knowledge or Experience - The subject property has been deed recorded and subject to a surface cleaning for arsenic. The materials collected were deposited in a pit to the rear of the warehouse as shown in the drawings. The arsenic was treated with lime to render insoluble in water as calcium arsenate in presence of excess calcium and sulfate. The findings of the borings made between June 29, 2001 and July 16, 2001 are given in Section 5.1.

2.5 Current Uses of the Property - The property is currently occupied by an appliance storage company and a church storage. No hazardous materials were found on inspection.

2.6 Past Use of the Property - Rural suburban land prior to the buildings being erected.

2.7 Properties adjoining the subject property are currently used for the following:

North: Vince's Bayou & Gulf Coast Waste Disposal
facility
South: Railroad
East: Pasadena Paper
West: Vacant land/Pipelines/Powerlines

Observations of the adjoining properties made from the adjacent streets showed no environmentally unsound practices underway. Adjoining properties had no areas of impoundments, oily/stained ground, excessive fill from unknown or suspect sources, stressed vegetation, or unusual odors.

2.8 Site Rendering, Map, or Site Plan - Attached is a copy of the map prepared by the site assessor with field notes.

EFEH & ASSOCIATES

3. RECORDS REVIEW

3.1 Standard Environmental Record Sources, Federal and State - Deed recorded arsenic contamination.

3.2 Physical Setting Sources - The USGS 7.5 topographic map shows the area to slope from West to East; with an elevation of approximately 27 feet to 11-13 feet at Vince's Bayou.

The three hydrogeologic units underlying Harris County are the Evangeline, Chicot, and Jasper aquifers. In general, the groundwater gradient is to the Southeast for these major aquifers. The Evangeline aquifer is the major water supply for the portion of Harris County containing the subject property. It lies 100 feet above mean sea level in extreme northwest Harris County, to 600 feet below mean sea level in the southwest Harris County area. The Chicot Aquifer is typically encountered in southern Harris County only. The Jasper Aquifer has not been developed significantly and is not a common source of drinking water in Harris County at this time.

In addition to the above mentioned primary aquifers, groundwater often occurs in perched, or isolated, discontinuous units. These are typically at depths less than 20 feet below grade in the Houston area. These units are not typically used for irrigation or drinking water supply, but are the aquifers most likely to be impacted by leaking underground storage tanks and/or surface spills. Flow direction in these units is variable, but typically follows the grade topography or toward the nearest down gradient water body. A subsurface investigation would be required to accurately gauge the presence and flow of any perched water unit under the subject property. The present drilling located perched water from 9-16 feet. This is below the 5-8 feet fill from Houston Sky Channel.

Wetlands are defined as areas which are inundated or saturated with surface or groundwater at a frequency or duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life under saturated soil conditions (Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1). By observations of the site and adjoining properties, it appears this area is not a jurisdictional wetlands area.

Radon is a colorless, odorless, naturally occurring gas that can migrate through permeable rocks and soils into buildings and the atmosphere. Geologic materials underlying a site which contain greater amounts of uranium produce greater amounts of radon gas. According to the Texas Indoor Radon Survey, 1992 prepared by the Texas Department of Health, four areas in Texas have the potential to support radon formation: the High Plains, the Big Bend area, the Llano Uplift area,

EFEH & ASSOCIATES

and several counties in Southeast Texas overlying Tertiary sands in the vicinity of some commercial mining activities. The subject property is not located close to these areas and is not considered likely to be affected by excess radon gas.

The USGS Land Use and Land Cover Map, Houston, Texas sheet, 1973 shows the subject property to be on soils of Urban Land. Urban Land is composed of areas that have been cut or filled so as to make classification impractical by standard geological indices. This land is also composed of 5-8 feet of spoils from the Houston Ship Channel.

According to the Geological Atlas of Texas, Pasadena Sheet (1982), the Urban Soils are developed atop the Beaumont Formation, a deltaic-fluvio deposit of Pleistocene age. The Beaumont is a heterogeneous formation, consisting of clay mixed with interbedded sand and silt. In most areas of Houston, the undisturbed underlying soil exhibits low permeability.

Potable water and sewerage is provided to the site by the City of Pasadena.

3.3 Historical Use Information - None used.

3.4 Additional Record Sources, if any - None used.

4. INFORMATION FROM SITE RECONNAISSANCE AND INTERVIEWS

4.1 Hazardous Substances in Connection with Identified Uses - Previous usage of warehouse resulted in recorded contamination by arsenic.

4.2 Hazardous Substance Containers and Unidentified substance Containers - None noted.

4.3 Storage Tanks - None on site.

4.4 Indication of PCBs - There are no transformers on poles on the property.

4.5 Indications of Solid Waste Disposal - None.

4.6 Physical Setting Analysis, if Hazardous Waste Migration is an Issue - If a spill were to occur on site, it would migrate to the drainage ditches to the Southeast of the property and into Vince's Bayou leading to the Ship Channel. The tract in front of the warehouse is almost completely concreted and asphalted. This prevents migration into the soil.

EFEH & ASSOCIATES

4.7 Any other areas of Concern - Lead based paint and asbestos are common areas of concern for property owners and managers. Subsidence faulting is also an area of concern in the Houston area.

Lead based paint is defined as paint containing more than 0.6% lead on a dry basis. No painting was conducted on the property. Asbestos insulation was not checked at the site.

Subsidence evidences were not observed in the surrounding area. Such evidence includes moderately steep slopes not due to excavation or fill and bands of street repairs due to land movement.

Electromagnetic field elevation in the subject property is not an issue as the power lines against and in the property have been stepped down in voltage to less than 8,000 volts. The high voltage lines to the west are sufficiently distant to be of no concern.

5. FINDINGS OF ARSENIC CONTAMINATION

5.1 Sampling - Beginning on July 29, 2001, EFEH & Associates obtained samples of soils and water from the 12.2 acres of land located at 400 N. Richey Street, Pasadena, Texas. Eight borings were made using a truck-mounted Diedrich D-50 drilling rig, utilizing hollow-stem augering techniques. The soil samples were obtained utilizing split spoon sampling device. Two-foot split spoon samples were taken at 0.2 feet and 8-10 feet, with water samples obtained using a teflon bailer at the depth specified. Groundwater was usually encountered at approximately 10-11 feet below grade. Samples were taken from the open borehole and filtered by a 8-10 micron porosity filter. All drilling and sampling equipment was thoroughly cleaned between borings to minimize cross-contamination potential. The soil boring locations are shown on Figure 2. The boreholes were sealed with 2 feet of bentonite, then portland cement to the surface to prevent future infiltration route for water.

A saturated, silty, sandy clay, of less than eighteen inches was found throughout the property, primarily at approximately 10 feet. The seventeen remaining samples, due to softness of the soil unable to support the drill truck, were made using a John Deere tractor mounted push probe. Samples were made as previously stated, except the front area water strata was struck before 10 feet (Samples 19-25).

The encountered materials are typical of the Beaumont Formation, which consists of plastic, stiff, silty clay with numerous relict sand channels and overbank deposits. These types of geomorphologic features form discontinuous sand and silt stringers and splay-type deposits which are the groundwater-bearing units in the shallow subsurface in the southeast Houston area. These relict sand channels are generally

EFEH[&] ASSOCIATES

restricted in the lateral and horizontal directions. They are considered to be hydraulically connected to each other and to the bayous and the Houston Ship Channel. The groundwater at these shallow depths is typically brackish.

5.2 Analytical Results - Samples of soil and water were submitted to the laboratory for analyses using TNRCC/EPA approved methodologies for arsenic and one water sample for chlorinated pesticides using EPA Method 8080. The results of these analyses are given in Table 1 and Table 2. A copy of the laboratory reports is given in Appendix B.

Since arsenic had been previously detected in the groundwater as well as the soil, the presence of arsenic, a listed pollutant, was specifically targeted. A level of 200 mg/Kg was established as the TNRCC mandated action level and 6mg/Kg as the background soil level, with 0.05 mg/L arsenic as the regulatory level. All water samples were filtered in the field. Boreholes 14 and 15 were in the center of the burial pit. Borehole 14 exceeded the TNRCC level (219 mg/Kg arsenic). Due to particle size (<10 micron) and haze in the water, the water samples were refiltered using 0.43 micron CMC filters. The reduction in water borne arsenic is indicative of particulate borne (soil origin) arsenic, with the previous treatment rendering the arsenic present insoluble in water.

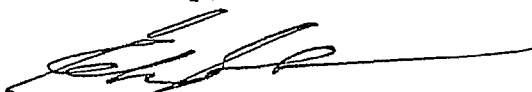
Water from Borehole 4 was subjected to chlorinated pesticide analyses using EPA method 8080. No pesticide was detected and the results are in Table 2 as the lab report.

6. CONCLUSION

The site at 400 N. Richey Street, Pasadena, Texas, is underlain by clays and silts of the Beaumont formation. There appears to be a continuous silty clay to sandy silt stringer at approximately 10 feet (9-16 feet). All soils outside the vault area are below the TNRCC regulatory level of 200 mg/Kg. No water sample after filtering was found to contain greater than the TNRCC regulatory level of 0.05 mg/L. Also no chlorinated pesticides were found in water from Borehole 4. Therefore, the previous treatment is assumed to be sufficient with only Borehole 14 surrounding soils exceeding.

Please contact me if you have any questions concerning these results.

Sincerely,



Edwin B. Smith, Jr., PhD

EFEH & ASSOCIATES

This assessment is limited by any exceptions noted above particularly in section 1.3. This site assessment was made using industry standard methods; however, it is economically unfeasible to identify all potential environmental problems at a given site. EFEH & Associates thus makes no certification or warranty as to the fitness for use of the subject property or on any hazards uncovered in subsequent activities on the subject property.

7. APPENDICES

A Maps and Photographs

B Laboratory Reports

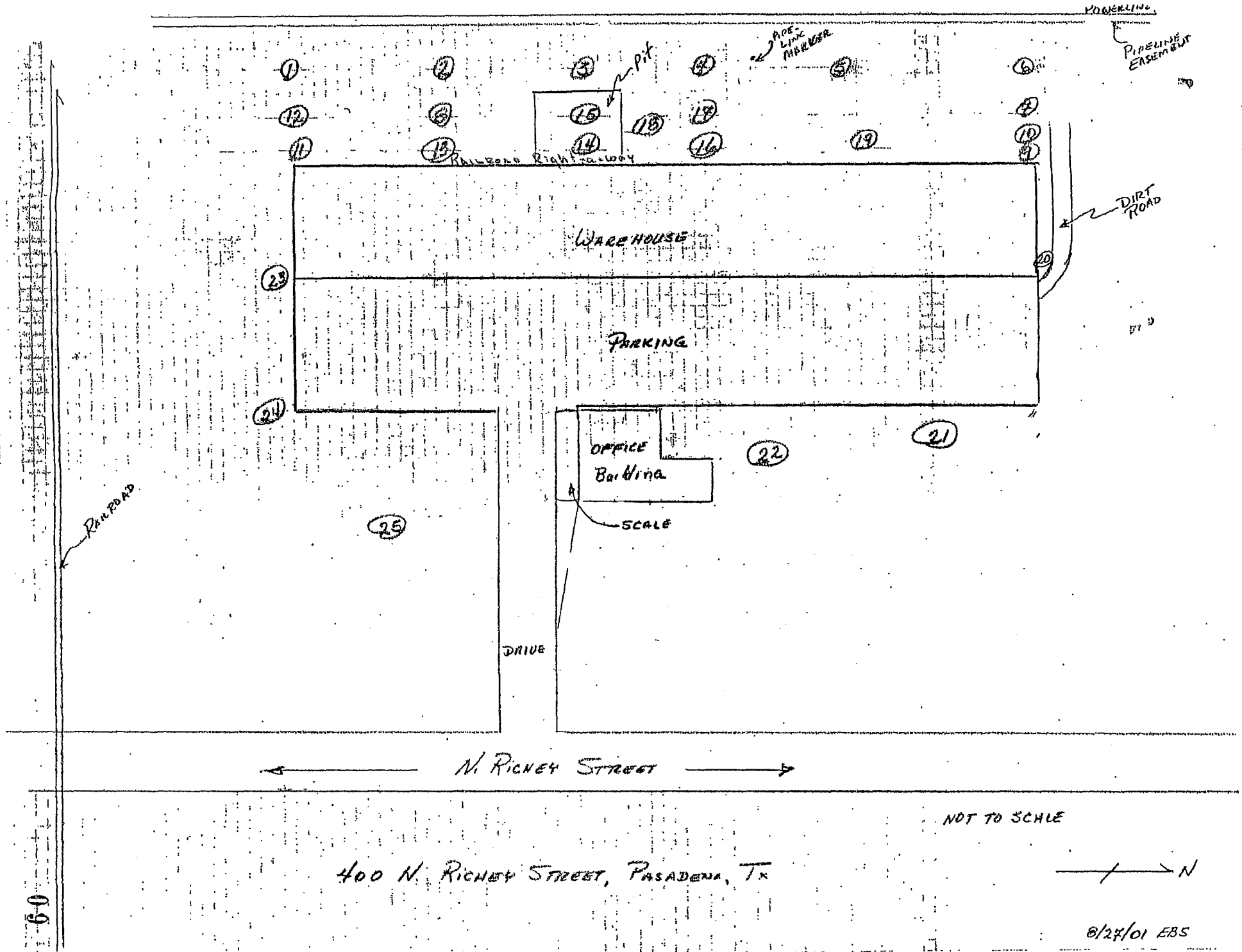
This report may be distributed to and relied upon with respect to any loan upon the property, together with any rating agency rating, or any issuer or purchase of, any security collateral or otherwise backed by such loan.

400 N. RICHEY ST.

EFEH [&] ASSOCIATES

APPENDIX A

MAPS AND PHOTOGRAPHS




EFEH & ASSOCIATES

3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

August 27, 2001

Page	1	of	4
Initials	DB		

Mr. Decker McKim
 REMAX
 6019 Fairmont Parkway, Suite B
 Pasadena, Texas 77505

Dear Mr. McKim:

Following are the results of the grab water samples submitted to our laboratory for analyses on June 29, 2001:

SAMPLE I.D.	#1	#2	#3
	06/29/01	06/29/01	06/29/01
	0815	0915	1030

LAB NO.	M-3765-1	M-3765-2	M-3765-3
---------	----------	----------	----------

Arsenic, mg/L	<0.05	<0.05	<0.05
---------------	-------	-------	-------

SAMPLE I.D.	#4	#5	#6
	06/29/01	06/29/01	06/29/01
	1120	1200	1250

LAB NO.	M-3765-4	M-3765-5	M-3765-7
---------	----------	----------	----------

Arsenic, mg/L	<0.05	<0.05	<0.05
---------------	-------	-------	-------

SAMPLE I.D.	#7
	06/29/01
	1510

LAB NO.	M-3765-8
---------	----------

Arsenic, mg/L	<0.05
---------------	-------

% RECOVERY: 106.8

% RPD: 3.49

This report may not be reproduced, except in its entirety, without the express consent of EFEH & Associates. Any results or opinions expressed herein apply only to the sample tested.

EFEH & ASSOCIATES

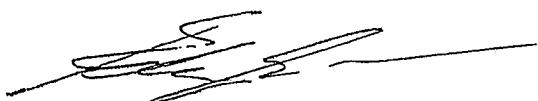
ANALYST: T.N.

DATE & TIME ANALYZED: 07/05/01 1111-1123

METHOD: EPA 6010B

Please contact me if you have any questions concerning these results.

Sincerely,



Edwin B. Smith, Jr., PhD


EFEH & ASSOCIATES

August 27, 2001

3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

Page	1	of	1
Initials	[Signature]		

Mr. Decker McKim
 REMAX
 6019 Fairmont Parkway, Suite B
 Pasadena, Texas 77505

Dear Mr. McKim:

Following are the results of the grab water samples submitted to our laboratory for analyses on July 16, 2001:

SAMPLE I.D.	#9 0-2'	#9 8'-10'	#9 H2O level 11'
	07/13/01	07/13/01	07/13/01
	1030	1230	1500
LAB NO.	M-3877-1	M-3877-2	M-3877-3
Arsenic, mg/L	2.22	34.25	<0.05
SAMPLE I.D.	#10 0-2'	#10 8'-10'	#10 H2O level 10'
	07/13/01	07/13/01	07/13/01
	1605	1640	1710
LAB NO.	M-3877-4	M-3877-5	M-3877-6
Arsenic, mg/L	<1.25	<0.12	<0.005
SAMPLE I.D.	#11 0-2'	#11 8'-10'	#11 H2O level 22'
	07/13/01	07/13/01	07/13/01
	1750	1810	2020
LAB NO.	M-3766-7	M-3877-8	M-3877-9
Arsenic, mg/L	0.75	2.62	<0.005

This report may not be reproduced, except in its entirety, without the express consent of EFEH & Associates. Any results or opinions expressed herein apply only to the sample tested.

EFEH & ASSOCIATES

SAMPLE I.D.	#11 H2O level 20'-22' 07/13/01 12020	#12 0-2' 07/14/01 0730	#12 8'-10' 07/14/01 0800
LAB NO.	M-3877-10	M-3877-12	M-3877-13
Arsenic, mg/L	129.7	176.5	1.15
SAMPLE I.D.	#12 H2O level 18' 07/14/01 0940	#12 H2O level 20'-22' 07/14/01 0940	#13 0'-2' 07/14/01 1015
LAB NO.	M-3877-14	M-3766-15	M-3877-16
Arsenic, mg/L	<0.005	9.07	1.27
SAMPLE I.D.	#13 8'-10' 07/14/01 1050	#13 H2O level 18' 07/14/01 1320	#13 H2O level 16'-18' 07/14/01 1320
LAB NO.	M-3877-17	M-3877-18	M-3877-19
Arsenic, mg/L	127.7	<0.005	0.37
SAMPLE I.D.	#14 0'-2' 07/14/01 1805	#14 8'-10' 07/14/01 1425	#14 H2O level 11' 07/14/01 1600
LAB NO.	M-3877-20	M-3877-21	M-3877-22
Arsenic, mg/L	5.70	218.7	1.00
SAMPLE I.D.	#15 0'-2' 07/14/01 1610	#15 8'-10' 07/14/01 1630	#15 H2O level 16' 07/14/01 1730
LAB NO.	M-3877-23	M-3877-24	M-3877-25
Arsenic, mg/L	3.70	3.35	1.08

EFEH & ASSOCIATES

SAMPLE I.D.	#15 0'-2' 07/14/01 1610	#15 8'-10' 07/14/01 1630	#15 H2O level 16' 07/14/01 1730fss
LAB NO.	M-3877-23	M-3877-24	M-3877-25
Arsenic, mg/L	3.70	3.35	1.08
SAMPLE I.D.	#15 H2O Level 14-16' 07/14/01 1730	#16 0'-2' 07/14/01 1805	#16 8'-10' 07/14/01 1840
LAB NO.	M-3877-26	M-3877-27	M-3877-28
Arsenic, mg/L	3.00	2.15	0.25
SAMPLE I.D.	#16 H2O Level 10' 07/14/01 1940	#16 H2O level 12'-14' 07/14/01 1940	#17 0'-2' 07/14/01 2010
LAB NO.	M-3877-29	M-3877-30	M-3877-31
Arsenic, mg/L	<0.005	0.97	0.85
SAMPLE I.D.	#17 8'-10' 07/14/01 2035	#17 H2O level 11 07/14/01 2045	#18 0'-2' 07/15/01 0930
LAB NO.	M-3877-32	M-3877-33	M-3877-34
Arsenic, mg/L	<0.125	<0.005	0.32
SAMPLE I.D.	#18 8'-10' 07/15/01 1000	#18 H2O level 11 07/15/01 1100	#19 0'-2' 07/15/01 1240
LAB NO.	M-3877-35	M-3877-36	M-3877-37
Arsenic, mg/L	1.25	<0.005	38.25

EFEH & ASSOCIATES

SAMPLE I.D.	#19 H2O level 14 07/15/01 1400	#20 0'-2' 07/16/01 1025	#21 0'-2' 07/16/01 1040
LAB NO.	M-3877-38	M-3877-39	M-3877-40
Arsenic, mg/L	<0.005	2.20	0.45
SAMPLE I.D.	#22 0'-2' 07/16/01 1100	#23 0'-2' 07/16/01 1120	#24 0'-2' 07/16/01 1135
LAB NO.	M-3877-41	M-3877-42	M-3877-43
Arsenic, mg/L	0.80	2.25	9.17
SAMPLE I.D.	#25 0'-2' 07/16/01 1150	#20 07/16/01 1025	#21 07/16/01 1040
LAB NO.	M-3877-44	M-3877-45	M-3877-46
Arsenic, mg/L	0.65	<0.005	<0.005
SAMPLE I.D.	#22 07/16/01 1100	#23 07/16/01 1120	#24 07/16/01 1135
LAB NO.	M-3877-47	M-3877-48	M-3877-49
Arsenic, mg/L	<0.005	<0.005	<0.005
SAMPLE I.D.	#25 07/16/01 1150		
LAB NO.	M-3877-50		
Arsenic, mg/L	<0.005		

% RECOVERY: 100.7

% RPD: 1.95

ANALYST: T.N.

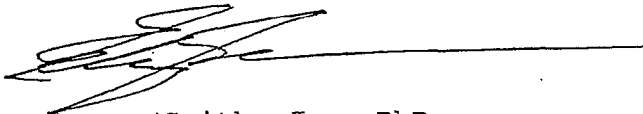
DATE & TIME ANALYZED: 07/26/01 1045-1101

METHOD: EPA 6010

EFEH & ASSOCIATES

Please contact me if you have any questions concerning these results.

Sincerely,

A handwritten signature in black ink, appearing to read 'Edwin B. Smith, Jr.', followed by a long horizontal line.

Edwin B. Smith, Jr., PhD

Reference 23:

US Oil Recovery. Submittal of Waste Removal Report. Letter dated September 22, 2003, Written and signed by Klaus Gennsler, President. 2 pages.



720 Oates Road
Houston, Texas 77013
Tel. (713) 674-9211
Fax. (713) 674-9990

September 22, 2003

Texas Commission of Environmental Quality
12100 Park 35 Circle
MC-127
Austin, TX 78753
Attn.: Mrs. Catherine Liu
Team I, Corrective Action Section
Remediation Division

RE: 400 N. RICHEY ST., PASADENA, TEXAS 77506
TCEQ SWR No. 52123

Dear Mrs. Liu:

Please find enclosed documentation related to the completion of the waste removal from the "Buried Waste Pit" located at the above referenced location.

Attachment 1 shows the location and dimensions of the pit. Three holes with different depths were dug, as marked on the exploded view:

- (1) 12 foot depth
- (2) 8 foot depth
- (3) 2 foot depth

Composites were made by pulling multiple samples from each of the excavated holes, combining them quartering the material. The quarters were recombined and quartered a total of three times. Two samples (M-9396-1 and M-9396-2) were obtained from final combination, each coming from a separate final quadrant mix. The samples were submitted to EFEH for analysis, who had them analyzed by Mercury Environmental Services.

The lab results were submitted to Waste Management for profiling (see Attachment 2, Waste Management's waste profile #AT-25553) and classified as a Class 2 solid waste.

The pit was excavated to a depth 1 foot below the Class 2 solid waste well into the naturally occurring clay layer. In total 1,608 yards were removed and shipped to Waste Management's Atascocita Landfill for disposal (See Attachment 3 - Waste Management Contaminated Dirt Receiving Report)

Attachment 4 provides photos of the pit upon completion of waste removal.

We would appreciate it if the TCEQ authorizes the amendment of the title of the property removing the waste pit qualification.

I also understand that you have received from Mr. Decker McKim a report demonstrating that the Groundwater meets criteria for a full industrial closure of the property.

We look forward to hearing from you.

Sincerely yours,

US Oil Recovery LLC

By: 

Klaus Genssler, President

Attachments



Reference 24:

Texas Commission on Environmental Quality. Approval of Remedy Standard A – Commercial/Industrial and Institutional Control for US Oil Recovery. Letter dated October 17, 2003, written by Catherine Liu, Project Manager. 2 pages.

52123

Robert J. Huston, *Chairman*
R. B. "Ralph" Marquez, *Commissioner*
Kathleen Hartnett White, *Commissioner*
Margaret Hoffman, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

October 17, 2003

Mr. Decker McKim
Decker McKim Realtors
3101 Nasa Road 1, Suite D
Seabrook, TX 77586

Re: Approval of Remedy Standard A - Commercial/Industrial and Institutional Control
• Groundwater Sampling and Institutional Control report, dated September 15, 2003
• Groundwater Sampling report, dated September 26, 2003
400 North Richey Street, Pasadena, TX
TCEQ SWR ID No. 52123

RECEIVED
OCT 20 2003
REGION 12

Dear Mr. McKim:

The Texas Commission on Environmental Quality (TCEQ) has reviewed the above referenced submittals. An Affected Property Assessment Report (APAR) was previously submitted to the TCEQ which documented the historical release and remediation of arsenic to the soil at this facility. The APAR was submitted the TCEQ as part of a voluntary site assessment conducted at the facility to determine if previous remedial actions adequately addressed the release of arsenic to the environment. Soil and groundwater were analyzed to determine if arsenic was present at levels that pose risks to humans or the environment based on commercial/industrial land use.

Based on the TCEQ review of the above referenced reports and other available information, Texas Risk Reduction Program (TRRP) Remedy Standard A Commercial/Industrial Protective Concentration Levels (PCLs) have been achieved such that no post-response action care is required.

In order to attain Remedy Standard A - Commercial/Industrial under TRRP, all industrial solid waste and municipal hazardous waste and waste residues must be removed or decontaminated from affected media (i.e., soil, surface water, groundwater, air) to applicable human health and ecological based standards and criteria as specified in 30 TAC §350.32.

The reports contain documentation indicating that TRRP Remedy Standard A Commercial/Industrial PCLs have been achieved. The reports also contain a document which fulfills the requirements of 30 TAC §350.111 relating to institutional controls.

Please be aware that it is the continuing obligation of persons associated with a site to ensure that

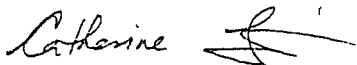
01

Mr. McKim
SWR No. 52123
Page 2
October 17, 2003

municipal hazardous waste and industrial solid waste are managed in a manner which does not cause the discharge or imminent threat of discharge of waste into or adjacent to waters in the state, a nuisance, or the endangerment of the public health and welfare as required by 30 TAC §335.4. A TCEQ field inspector may conduct an inspection of your site to determine compliance with these requirements.

Questions concerning this letter should be directed to me at (512) 239-6678. When responding by mail, please submit an original and one copy of all correspondence and reports to the TCEQ Corrective Action Section at Mail Code MC-127 with an additional copy submitted to the local TCEQ Region Office. The information in the reference block should be included in all submittals.

Sincerely,



Catherine Liu, Project Manager
Team I, Corrective Action Section
Remediation Division
Texas Commission on Environmental Quality

CL/cl

cc: Waste Program Manager, TCEQ Region 12 Office, Houston

Reference 25:

Texas Commission on Environmental Quality. Investigation Report for U.S. Oil Recovery LLC. Dated October 7, 2005 and written by Chawana Como. 9 pages.

Texas Commission on Environmental Quality
Investigation Report
US OIL RECOVERY LP
CN602842734

US OIL RECOVERY**RN100604677**

Investigation # 436602

Incident #

Investigator: EDGAR ST. JAMES JR

Site Classification

CONDITIONALLY EXEMPT SMALL
 QUANTITY GENERATOR
 WASTEWATER TREATMENT PLANT

Conducted: 10/07/2005 -- 10/07/2005

SIC Code: 4953

NAIC Code: 56292

Program(s): INDUSTRIAL AND HAZARDOUS WASTE NONPERMITTED
 INDUSTRIAL AND HAZARDOUS WASTE GENERATION
 INDUSTRIAL AND HAZARDOUS WASTE PROCESSING

Investigation Type: Compliance Investigation

Location: EAST ON HWY 225 EXIT
 RICHEY RD TURN LEFT VIER LEFT ON
 OLD RICHEY RD OVER THE RAILROAD
 TRACKS TURN FIRST LEFT INTO RICHEY
 RD

Additional ID(s): 52123
 TXR000051540
 A85794
 40202

Address: 400 N RICHEY ST;
 PASADENA, TX 77506

Activity Type: REGION 12 - HOUSTON

IHWSP - Reporting sample results.

*Sampling Investigation*Principal(s):

Role	Name
RESPONDENT	US OIL RECOVERY LP

Contact(s):

Role	Title	Name	Phone
Participated in Investigation	VICE PRESIDENT OF OPERATIONS	MR LEROY ARCE	Work (713) 473-0013
Regulated Entity Contact	COMPLIANCE MANAGER	MR BILL SHAFER	Work (713) 472-5668
Regulated Entity Mail Contact	COMPLIANCE MANAGER	MR BILL SHAFER	Work (713) 473-0013
Participated in Investigation	COMPLIANCE MANAGER	MR BILL SHAFER	Work (713) 472-5668
			Fax (713) 473-0013
			(713) 472-5668

Other Staff Member(s):

Role	Name
INVESTIGATOR	CHAWANA COMO
QA REVIEWER	CHARLES BURNER
SUPERVISOR	JASON YBARRA

Associated Check ListChecklist Name

IHW GENERIC OTHER ISSUES OR VIOLATIONS (10

Unit Name

52123 - IHW Generic

COPYInvestigation Comments:

INTRODUCTION

On October 7, 2005, Mr. Edgar E. St. James, Jr. of the Texas Commission on Environmental Quality (TCEQ) Region 12 Solid Waste Section conducted a Sampling Investigation at US Oil Recovery (USOR). Ms. Chawana Como, Environmental Investigator, Waste Section, also participated in the investigation. The investigation entailed the taking of soil samples in conjunction with a complaint investigation regarding storm water management conducted by Mr. Mike Taylor, Environmental Investigator, Water Section. USOR is located at 400 N. Richey Street, Pasadena (Harris County), Texas on a 12.2-acre tract (Attachment 1). The property is situated in an industrial and commercial area near Vince Bayou within Drainage Segment 1007 of the San Jacinto River Basin. There are two buildings on the site. A one story brick office building (approximately 3000 square feet) is situated at the entrance to the facility. The second building is a one story brick and metal rectangular structure encompassing over 25,000 square feet. A processing area and tank farm are located at the north end of the larger building. The two buildings are separated by a concrete parking lot. The facility is surrounded by a six-foot chain link fence. A complainant had alleged that USOR discharged contaminated storm water from a pipe located just outside the entrance to the facility, and dumped tank bottom waste into a manhole located on the southeast side of their property. The manhole is part of a sewer line used by USOR to discharge wastewater to the City of Pasadena.

USOR is registered in the following TCEQ programs: Municipal Solid Waste (MSW) Program as a liquid waste transfer station (TCEQ ID No. 40202); Sludge Program as a transporter (TCEQ ID No. 23481); Used Oil Program as a used oil transporter, transfer facility, processor, marketer, and used oil filter transporter, storage facility, processor (TCEQ ID No. A85794); and Industrial and Hazardous Waste Program as a generator, receiver, transporter, and transfer facility (TCEQ ID No. 52123, EPA ID No. TXR000051540). USOR also treats off-site generated nonhazardous and characteristically hazardous industrial liquid waste under a wastewater treatment exemption. The facility's core data form is included in Attachment 2. During the investigation, USOR was represented by Mr. Leroy Arce, V. P. of Operations, and Mr. Bill Shafer, Compliance Manager.

Investigation

Upon arrival at the site, dark colored water was observed in a ditch between N. Richey Street and the manhole, which is located approximately 28 feet west of the road. Based on distressed vegetation extending from the manhole, it appeared the water had overflowed from the manhole. Mr. Taylor sampled the water, while Mr. St. James and Ms. Como collected four soil samples.

Soil samples were obtained with disposable plastic scoops from depths of 1 - 4 inches. Sample No. 1 was taken one foot north of the manhole. Sample No. 2 was collected near the ditch, nine feet east-northeast of the manhole, and Sample No. 3 was collected from soil below ponded water on the east side of the ditch approximately 17 feet east southeast of the manhole. Sample No. 4 was taken from a potentially unaffected, grass covered area approximately 17 feet northwest of the manhole. Soil sample locations are indicated on a diagram included in Attachment 3. The manhole and sample locations can also be seen in Photos 1 to 10, Attachment 4. All soil samples were placed on ice and delivered to Accutest Laboratories in Houston later that day. The samples were analyzed for the following chemicals of concern: RCRA (Resource Conservation and Recovery Act) metals plus copper, nickel and zinc; BETX (benzene, ethylbenzene, toluene and xylene); and TPH (total petroleum hydrocarbons).

Laboratory results were received on October 25, 2005 (Attachment 5). They indicated arsenic, barium, lead, and mercury contamination in excess of Texas Risk Reduction Program (TRRP) Tier 1 protective concentration levels (PCLs) for soils at commercial/industrial sites (assuming a Class 1 uppermost groundwater bearing unit). The concentration of these metals also exceed the Texas-specific median background concentration as shown in Table 1 below.

Table 1 - Manhole

Soil Samples Showing Contamination Above TRRP Tier 1 Protective Concentration Levels (PCLs)
(Commercial/Industrial Site, 0.5-Acre Source Area, Soil to Groundwater Pathway)

Sample ID	Arsenic (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)
-----------	--------------------	-----------------	--------------------

US OIL RECOVERY - PASADENA

October 07 05

Page 3 of 9

T11590-1	29.3	36.9	0.43
T11590-2	115.0	30.7	0.093
T11590-3	55.3	27.0	0.14
T11590-4	66.5	68.9	0.35
TRRP Tier 1 PCL	5.0	3.0	0.0078*
Texas Specific	5.9	15.0	0.04
Background Concentration**			

* pH = 4.9

** 30 TAC 350.51(m)

Additionally, chromium, copper, nickel, and zinc were detected at levels above Texas-specific median background concentrations, but below TRRP action levels, as indicated in Table 1A below. Several organic compounds for which no median background concentrations have been established were also detected at concentrations below TRRP action levels, as follows: benzene, ethylbenzene, toluene, xylene, and TPH.

Table 1A - Manhole

Soil Samples Showing Contamination Above Texas-Specific Median Background Concentrations, but Below TRRP Tier 1 Protective Concentration Levels (PCLs)
(Commercial/Industrial Site, 0.5-Acre Source Area, Soil to Groundwater Pathway)

Sample ID	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
T11590-1	34.9	22.7	19.6	312
T11590-2			16.3	203
T11590-3				122
T11590-4	31.0	26.7	18.3	574
TRRP Tier 1 PCL	2400	1000	470	7000
Texas Specific	30	15	10	30
Background Concentration**				

** 30 TAC 350.51(m)

Mr. Arce and Mr. Shafer claimed that water in the ditch was not from an overflow of the manhole, but was either storm water or water from an overflow of the nearby Vince Bayou. They explained that previous problems with the manhole had been fixed, and the lift station and manhole are visually checked whenever wastewater is batch discharged from the facility. They stated that USOR samples the lift station daily, and prior to September 29, 2005, it was sampled twice a week. Wastewater is not discharged in a continuous flow, but only on a batch basis. They stated that USOR discharges grease trap wastewater and domestic wastewater to the City of Pasadena. Mr. Shafer said that USOR receives just one to three loads of grit trap waste per month, which is placed in storage upon receipt. He stated the facility took this action after being informed by the TCEQ that grit trap wastewater was subject to regulations under 40 CFR 437, Subpart B as wastewater from a categorical industrial user.

Mr. Arce stated that in July 2005 the City of Pasadena Fire Marshal required USOR to excavate soil in the area of the manhole. Mr. Shafer said the facility took approximately 100 samples and removed 6 - 8 inches of soil (60 cubic yards). He stated that this cleanup began on or about July 21, 2005. A written report on the clean up is on hold pending a response from the City to a USOR request for guidance on taking confirmation samples in light of possible contamination from paint spilled on the street next to the excavated area. For that reason, he said the area had not been back-filled and the ditch is deeper now than it would be normally.

Facility representatives stated that the accumulated water in the ditch may have been left behind after a recent overflow of Vince Bayou, which is located on the other (east) side of N. Richey Street.

A culvert extends under N. Richey Street, which can convey water from the bayou to the west side of the road. Mr. Shafer stated that earlier that week (October 3 and 4) water covered the road in front of the USOR facility and was approximately one foot deep. That section of road is lower than the section near the manhole, which was not under water. However, he stated that water may have encroached into the ditch in the vicinity of the manhole. Rainwater also collects in the ditch on the west side of the road according to the facility representatives. Mr. Arce stated that as water stagnates in the ditch it becomes dark in color and takes on the appearance of wastewater. During this investigation, small pools of dark stagnant water were observed at the ends of the culvert on both sides of the road. He further commented that if the water in the ditch is determined to be wastewater, then it must have been dumped there by a third party. He also stated that if contamination is found in the samples, it may be the result of the paint spill and/or a discharge of hydraulic fluid on the road in the vicinity of the manhole. On October 1, 2005, Mr. Arce discovered hydraulic fluid leaking from a disabled truck which had left the Gulf Coast Waste Disposal Authority (GCA) Facility located about a half mile away on N. Richey Street, and stopped near the manhole. He said that he reported the occurrence to GCA management, who advised him that the truck was independently owned and not under GCA's control when off-site. During this investigation, the paint stains and an apparent hydraulic fluid stain were visible on the road. There was also evidence of impacts to vegetation in several locations along the side of the road. It was noted that a granular absorbent material had been applied to the area contaminated by hydraulic fluid.

Regarding storm water management, Mr. Arce and Mr. Shafer were informed that the agency had received a complaint alleging USOR discharged contaminated storm water from its outfall near the front gate of the facility. Mr. Shafer explained that the water comes from the paved area between the two buildings, which is used by trucks delivering waste. He stated that only uncontaminated storm water is released to the outfall. Any contaminated water resulting from wash down of spills or incidental drips is captured and transferred to the on-site wastewater treatment plant. Mr. Taylor toured the site with Mr. Shafer to evaluate storm water management practices, and also collected a water sample at the front of the facility. Three soil samples were taken at the outfall and along its drainage path by the investigator and Ms. Como. These were shared with Mr. Shafer, who requested a split of each sample. Sample Nos. 1A and 2A were collected from a location approximately two feet in front of the outfall at a depth of 2 - 6 inches. Sample No. 2A was a duplicate of No. 1A for quality control purposes. It was noted that the soil color changed from brown to black about 2 inches below the surface. Sample No. 3A was collected in the drainage path below the outfall at a location approximately 30 feet from Nos. 1A and 2A. Depth of the sample was 2 - 5 inches. Black soil was not present at this location. The sample locations are indicated on a diagram included in Attachment 3. The outfall and sample locations can also be seen in Photos 11 to 15, Attachment 4. Soil samples were placed on ice and delivered to Accutest Laboratories that afternoon. Requested analyses included RCRA metals plus copper, nickel and zinc, BETX, and TPH.

Laboratory results were received on October 25, 2005 (Attachment 6). They indicated arsenic, barium, lead, and mercury contamination in excess of TRRP Tier 1 PCLs for soils at commercial/industrial sites (assuming a Class 1 uppermost groundwater bearing unit). The concentration of these metals also exceeded the Texas-specific median background concentration as shown in Table 2 below.

Table 2 - Storm Water Outfall

Soil Samples Showing Contamination Above TRRP Tier 1 Protective Concentration Levels (PCLs)
(Commercial/Industrial Site, 0.5-Acre Source Area, Soil to Groundwater Pathway)

Sample ID	Arsenic (mg/kg)	Barium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)
T11591-1 (1A)	46.3	720	40.8	0.20
T11591-2 (2A)	43.4	577	48.8	0.18
T11591-3 (3A)	66.6	1680	64.3	0.46
TRRP Tier 1 PCL	5.0	440	3.0	0.0078*
Texas Specific Background Concentration**	5.9	300	15.0	0.04

* pH = 4.9

** 30 TAC 350.51(m)

As near the manhole, chromium, copper, nickel, and zinc were detected at levels above Texas-specific median background concentrations, but below TRRP action levels. This is shown in Table 2A below. Various organic compounds were also detected at concentrations below TRRP action levels (benzene, ethylbenzene, toluene, xylene, and TPH).

Table 2A - Storm Water Outfall

Soil Samples Showing Contamination Above Texas-Specific Median Background Concentrations, but Below TRRP Tier 1 Protective Concentration Levels (PCLs)
(Commercial/Industrial Site, 0.5-Acre Source Area, Soil to Groundwater Pathway)

Sample ID	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
T11591-1 (1A)	47.4	49.2	27.0	489
T11591-2 (2A)	35.8	44.5	26.1	668
T11591-3 (3A)	61.2	81.6	41.3	1010
TRRP Tier 1 PCL	2400	1000	470	7000
Texas Specific Background Concentration**	30	15	10	30

** 30 TAC 350.51(m)

Background

Little information is available in TCEQ files about operations that occurred on this property prior to USOR's involvement. The site was formerly owned by three chemical companies. Stauffer Chemical Co. sold it to Chipman Chemical Co. (Chipman) in 1947, and Chipman merged with Rhodia, Inc. in 1967. Rhodia, Inc. sold the property in 1973 to North American Hide Co. In 1980, Covesud S.A. purchased it. Title was transferred to Client Growth Specialist Inc. in 1991, and transferred back to Covesud S.A. in 1995. Mountain View Capital LLC acquired the site in 2001, and sold it to Hide Exporters of Texas Inc. (Hide) in 2002. According to a Deed of Trust between USOR and Hide, USOR took possession of the property on June 1, 2003, and purchased it on December 13, 2004. An Affected Property Assessment Report (APAR) dated May 16, 2002 by Hide indicated that the buildings were constructed in the late 1960's, and the property used for the tanning of leather. It stated that arsenic was used in the tanning process. The APAR indicated the following: 1) the facility went bankrupt in the mid 1980's and the property owner was required to cleanup arsenic contaminated soil, 2) contaminated soil was removed in 1990 and placed into an on-site pit on the west side of the large building and mixed with lime to render it insoluble in water as calcium arsenate, and 3) the TCEQ requested in 2001 that samples be collected to verify the site had been cleaned to acceptable levels and groundwater was not impacted.

Conflicting information was provided by a letter dated May 24, 2002 from Ms. Ruth Lang, Data Processing, to EFEH & Associates, the environmental consulting company performing the site assessment for Hide and the generator of the APAR. She indicated that the site history and property use as represented in the APAR were incorrect. She wrote that Rhodia caused the arsenic contamination and cleaned the property in the early 1970's according to the then current environmental standards. She further indicated that after purchasing the site in 1973, North American Hide Exporters Inc. traded raw cattle hides only, and no tanning operation existed on this property and no arsenic was used during their tenure. The export company went out of business in the late 1980's, and the property and buildings remained vacant except for some short term leases for storage of various hard goods.

The TCEQ enforcement database shows a former case against Covesud S.A. for onsite contamination. Enforcement ID No. 1807, Case 1 extended from September 30, 1992 until June 6, 1998 when it was referred to the Remediation Division. The case stemmed from a site assessment

Covesud conducted in 1991 which found contamination in soil and groundwater on the west side of the large building near a tank situated in an in-ground vault. A Notice of Violation (NOV) dated October 7, 1992 was issued by the Texas Water Commission (predecessor of the TCEQ) for unauthorized discharge. The NOV referenced analytical results from soil and groundwater samples that indicated a high concentration of arsenic, a high level of TPH, and the presence of several pesticide and organic solvent constituents. Covesud S.A. was directed to take corrective actions within specified time frames.

A sampling report dated March 2, 1998 was subsequently submitted to the agency. Based on its review, the Corrective Action Section of the Remediation Division requested additional sampling at the site by letter dated June 12, 2001. The 1998 sampling report is no longer available in the files. Soil and groundwater samples were collected June 24, 2001, and analyzed for arsenic. An August 27, 2001 report entitled Environmental Assessment for Arsenic in Groundwater at 400 N. Richey St., Pasadena, Texas was prepared by EFEH & Associates and submitted by Mr. Decker McKim, Owner/Broker of the real estate office RE/MAX Southeast, who represented the property owner. The report concluded that all soils outside of the arsenic burial pit were below a concentration of 200 mg/kg. One borehole (No. B-14) within the pit exceeded that level (218.75 mg/kg arsenic). The report stated that the level of 200 mg/kg was established as the Texas Natural Resource Conservation Commission (TNRCC) mandated action level. (The TNRCC was the predecessor of the TCEQ.) It further indicated that no water sample (after filtering) was found to contain greater than the TNRCC regulatory level of 0.05 mg/l arsenic, and no chlorinated pesticides were found in water from one borehole (No. B-5) tested for those compounds. On January 14, 2002, the Corrective Action Section project manager requested collection of additional information and submittal of an APAR.

The APAR dated May 16, 2002 (referenced above) was subsequently submitted. It addressed 25 borings from which a total 56 soil samples and 25 water samples were collected and analyzed for arsenic. Ten borings were converted to groundwater monitoring wells. Soil and Groundwater Data Summary Tables, maps showing arsenic concentrations in soil at depths of 0-2 feet, 8-10 feet, and below 10 feet, and a map showing monitoring wells are included in Attachment 9. To correct a recordkeeping error, Mr. McKim notified the agency on June 4, 2002 that the actual owner of the property was Hide Exporters, Inc., Mr. Diethelm Rehn, President. The project manager issued a Notice of Deficiency (NOD) letter dated August 29, 2002 requesting a revised report be submitted that fulfilled the reporting requirements. He also asked for justification regarding assessment of the arsenic concentration to 200 mg/kg. On March 20, 2003, the agency requested additional information after reviewing the property owner's response dated December 26, 2002. One of the deficiencies again pertained to the 200 mg/kg arsenic assessment level. It was pointed out that the critical PCL for a given environmental media should be the lowest of all applicable PCLs. An explanation was requested for why 200 mg/kg (total soil combined PCL) was used in assessing arsenic in soil instead of the lower 2.5 mg/kg (soil to groundwater PCL). Eighteen soil samples exhibited arsenic concentrations over 2.5 mg/kg with five samples exceeding 100 mg/kg. The owner was asked to collect confirmation soil samples particularly around soil borings where elevated concentrations of arsenic were detected in order to determine if remedial actions would be required. In addition, the synthetic precipitate leaching procedure (SPLP) test was to be performed on these samples to demonstrate that arsenic would not leach to groundwater.

New samples (29 soil and 10 groundwater) were obtained for arsenic analysis in April 2003, and a response dated May 6, 2003 was submitted to the TCEQ project manager. It stated that SPLP test results revealed the highly compact silty clay underlying the property was impervious to the movement of arsenic. The dimensions of the arsenic waste pit were further delineated by additional boreholes. Sampling results and a map showing the sample locations including the new boreholes are included in Attachment 10. Regarding the arsenic assessment level in soil, the letter stated that 200 mg/kg was chosen based on industrial use of the land, history of the site, and clean-up standards approved and promulgated at time of site cleanup closure. On August 18, 2003, the TCEQ gave conditional approval to the response. The soil assessment phase at the property was deemed complete, but more groundwater sampling was required. The property owner responded on September 15, 2003 with the following submittals: 1) analytical data from samples collected on September 3, 2003 from the groundwater monitoring wells, 2) a Groundwater Classification Report dated September 6, 2003 that determined the uppermost groundwater bearing unit to be Class 1, and 3) two recorded deed notices - Texas Risk Reduction Program Deed Notice and Industrial Solid

Waste Deed Notice of Waste Disposal (Attachment 11). The second deed notice specified the location of the arsenic pit which was left in place. Additional groundwater analytical information was submitted on September 26, 2005 for samples collected on September 25, 2003. USOR, the new occupant of the property, decided to remove the arsenic waste from the pit behind the building. By letter dated September 22, 2003, Mr. Klaus Gennsler, President, notified the project manager that the contaminated soil had been removed from the "Buried Waste Pit." A total 1608 cubic yards were removed, characterized, and shipped to a landfill for disposal. The agency approved this waste removal report on October 10, 2003.

The Corrective Action Section advised the property owner by letter on October 17, 2003 (Attachment 12) that based on a review of reports dated September 15 and 26, 2003 and the APAR, which documented the historical release and remediation of arsenic in the soil, and other available information, it was determined that the TRRP Remedy Standard A - Commercial/Industrial PCLs had been achieved such that no post-response action care was required. The letter further indicated that the deed recordation requirement relating to institutional controls had also been fulfilled. Another TCEQ letter was sent on October 28, 2003 reminding the property owner to properly plug and abandon monitoring wells at the facility that were no longer to be used, and amend the property deed record to reflect the removal of arsenic waste from the burial pit. The letter directed that the amendment should include a description of the waste removed, the location and dimensions of the excavation, and the total volume of soil removed. There is no record that this was done.

ADDITIONAL INFORMATION.

During a complaint investigation conducted on October 27, 2005 by Mr. St. James and Ms. Kristi Fluker, Environmental Investigator, Region 12 Waste Section, facility representatives stated that the lift station and manhole were not located on USOR property. However, based on measurements taken that day by the investigators, the lift station and manhole appear to be situated within the confines of USOR property as outlined on a map submitted with their permit application (Attachment 7). The stormwater outfall does appear to be located off USOR property. This is indicated on the same map as well as on a second map included in Attachment 7 showing only the north portion of the site. Based on information obtained from the Harris County Appraisal District website, the owner of the property at the outfall is the City of Houston (Acct. No. 0281810000023). USOR representatives stated that the former property owner of the USOR site, Hide Exporters of Texas Inc., indemnified USOR from any liability for soil or groundwater contamination that occurred prior to USOR taking possession of the property. USOR provided a copy of the Deed of Trust (Attachment 8), which contains this indemnification language.

Correspondence to USOR from Gulf Coast Waste Disposal Authority indicates USOR processed wastewaters containing organic compounds and metals, including lead, barium, chromium, copper, zinc, and others. Notices of Violation (NOVs) and GCA quarterly reports documented that USOR exceeded the discharge limits of its Pretreatment Affluent Permit regarding National Categorical Pretreatment Standards for Subpart B of the Centralized Waste Treatment Point Source Category. Exceedances for lead, chromium, copper, and zinc are addressed in NOVs dated October 14, 2003, March 18 and November 17, 2004, and a Quarterly Report of Industrial Users for Significant Noncompliance covering the period October 1, 2003 to March 31, 2004. NOVs dated October 14, 2003 and December 11, 2003 indicated that discharge limits for barium were also exceeded. These records are included in Attachment 13.

Analytical data submitted by a citizen (Attachment 14) for a storm water sample collected at USOR's outfall near the front gate appears to indicate that the facility's storm water discharge contains similar contaminants to the documented soil contamination in this area. Although the citizen did not certify that the sample was collected in accordance with TCEQ sampling protocols and procedures, or that the sample was collected legally, the analysis is presented for informational purposes. The chain of custody indicates that the sample was collected on September 18, 2005, and delivered to the lab on September 20, 2005. The lab report, however, indicates the sample was collected on September 19, 2005. The following metals and organic compounds were detected in the water: arsenic, chromium, copper, lead, nickel, silver, zinc, m- & p-xylenes, MEK (methyl ethyl ketone), and naphthalene. Measured concentrations of these contaminants were well below those that would classify the stormwater as either hazardous waste, or industrial nonhazardous Class 1 waste. Storm water management at USOR and compliance with applicable regulations are under evaluation by the

Region 12 Water Quality Section.

Conclusion

Soil contaminated with arsenic, lead, and mercury in concentrations above regulatory cleanup levels was found near the manhole and storm water outfall. Barium above TRRP cleanup levels was also discovered in soil at the outfall. In addition, contamination by the following chemicals of concern was detected above Texas-specific median background concentrations, but below TRRP action levels: chromium, copper, nickel, zinc, benzene, ethylbenzene, toluene, xylene, and TPH. During 2001-2003, the developed northern portion of the property was evaluated for arsenic contamination in accordance with TRRP regulations. Other metals were not addressed. The TCEQ Remediation Division concluded that the APAR and other documentation submitted by the property owner indicated that TRRP Remedy Standard A Commercial/Industrial protective concentration levels (PCLs) had been achieved for arsenic within the evaluated area. A PCL of 200 mg/kg was used for assessing arsenic in soil, and 0.01 mg/l in groundwater. The newly discovered contamination near the manhole is located on USOR property outside of the area addressed by the APAR, as indicated on the property map in Attachment 15. USOR's storm water outfall and the associated soil contamination appear to be located on property owned by the City of Houston. USOR must determine the areal and vertical extent of contamination that exceeds the TRRP Tier 1 PCLs in both areas, and ensure the affected property is rendered protective of human health and the environment using Remedy Standard A or B as specified in 30 TAC 350.

OUTSTANDING ALLEGED VIOLATION

The following violation was determined as a result of the sampling investigation conducted on October 7, 2005:

1. 30 Texas Administrative Code 335.4(1) - General Prohibitions (Category B12)

During the investigation on October 7, 2005, soil samples were collected which revealed contamination requiring remediation. Analytical results showed concentrations of arsenic, lead, and mercury exceeding Texas Risk Reduction Program (TRRP) Tier 1 protective concentration levels (PCLs) for soil at commercial/industrial sites near the manhole on the southeast side of the facility property, and at the storm water outfall near the front gate. Soil at the outfall additionally contained barium in concentrations exceeding TRRP Tier 1 PCLs. The horizontal and vertical extent of contamination near the manhole and storm water outfall must be determined, and the affected property rendered protective of human health and the environment using Remedy Standard A or B to satisfy cleanup responsibilities as specified in Title 30 Texas Administrative Code (TAC) Chapter 350.

<u>NOV Date</u>	<u>Method</u>
12/05/2005	WRITTEN

OUTSTANDING ALLEGED VIOLATIONS

Track No: 222394	Compliance Due Date: 01/09/2005
30 TAC Chapter 335.4(1)	

Alleged Violation:
Investigation: 436602

Comment Date: 11/26/2005

During the investigation on October 7, 2005, soil samples were collected which revealed contamination requiring remediation. Analytical results showed concentrations of arsenic, lead, and mercury exceeding Texas Risk Reduction Program (TRRP) Tier 1 protective concentration levels (PCLs) for soil at commercial/industrial sites near the manhole on the southeast side of the facility property, and at the storm water outfall near the front gate. Soil at the outfall additionally contained barium in concentrations exceeding TRRP Tier 1 PCLs.

Recommended Corrective Action: The horizontal and vertical extent of contamination near the manhole and storm water outfall must be determined, and the

affected property rendered protective of human health and the environment using
Remedy Standard A or B to satisfy cleanup responsibilities as specified in Title 30
Texas Administrative Code (TAC) Chapter 350.

Resolution:

Signed Edgar C. H. James, Jr.
Environmental Investigator

Date 12/05/2005

Signed [Signature]
Supervisor

Date 12/05/2005

Attachments: (in order of final report submittal)

☐ Enforcement Action Request (EAR)

1, 3, 7, 9, 10, 15 Maps, Plans, Sketches

☒ Letter to Facility (specify type): NOV

4 Photographs

Investigation Report

☐ Correspondence from the facility

3, 6, 14 Sample Analysis Results

☒ Other (specify):

☐ Manifests

See List of Attachments

☐ NOR

Reference 26:

**US Oil Recovery. NOV for Pre-opening Inspection. Letter dated March 2, 2006.
Written by Bill Shafer. 2 pages.**



400 N. Richey Street
Pasadena, Texas 77506
Tel. 713.473.0013
Fax. 713.472.5668

March 2, 2006

Mr. Jason T. Ybarra
Texas Commission on Environmental Quality
Solid Waste Section
5425 Polk Ave, Ste H
Houston, Texas 77023-1486

RE: NOV for Pre-opening Inspection

Dear Mr. Ybarra:

Attached you will find the response to the NOV's for the pre-opening inspection of our facility you conducted on January 10th of this year. Facility Registration Number 43020. Should you need additional information please contact us immediately.

1. Unauthorized discharge behind tank farm.

The spill that was identified during the investigation was the result of a pipeline that had broken under pressure. The result of this break allowed approximately 50-100 gallons of oily water to be sprayed over the containment wall behind tank 3. Immediately after the investigation the area was washed down and the wall area cleaned up. The impacted soil behind the facility was excavated and replaced with clean soil. Samples of the area were taken on March 3rd 2006 and sent to the lab for TPH, & BETX Sampling. USOR will provide TCEQ with the results of the test as soon as they become available. Should further cleanup be required USOR will notify the TCEQ and Remediate the area as required.

2. Permit Required

This material has been processed and the grease has solid and the water discharged to Pasadena. The hydrocarbon contaminated oil was blended with used oil.

3. Quarterly Reporting

All reports have been filed with the agency as of 3-3-06. The reports submitted in error have been corrected to calculate grit trap at 9 lbs per gallon. Copies Attached.

RECEIVED

MAR 06 2006

REGION 12

ADDITIONAL ISSUES

1. Cracks in Concrete

The area around the storm drain has been repaired. USOR has requested bids from contractors to place the broken concrete in front of the MSW offloading area. Due to the cost and coordination with an engineer USOR is requesting an additional 60 days to complete a compliance schedule for this issue.

2. Oil Spills In Parking Area

USOR has cleaned up the spills in the parking area. These spills are generated largely due to trucks leaking oil. USOR has implemented a daily house keeping procedure to keep such spills policed.

3. Discrepancies I Registration Application

We are in the process of filing a registration minor modification to correct the items identified during the investigation. This Modification request will be submitted NLT 1 April 2006. A copy of the submission will be sent to the regional office.

Sincerely,

A handwritten signature in black ink, appearing to read "Bill Shafer", with a stylized flourish extending from the end.

Bill Shafer
US Oil Recovery, LP

RECEIVED
MAR 06 2006
REGION 12

Reference 27:

**Texas Commission on Environmental Quality. Investigation Report for U.S. Oil
Recovery LLC. Dated May 25, 2006 and written by Edgar St. James, P.G.
5 pages.**

Texas Commission on Environmental Quality
Investigation Report
US OIL RECOVERY LP
CN602842734

US OIL RECOVERY
RN100604677

Investigation # 467557

Incident #

Investigator: EDGAR ST. JAMES JR

Site Classification

CONDITIONALLY EXEMPT SMALL
 QUANTITY GENERATOR
 USED OIL PROCESSOR
 MARKETERS
 USED OIL FILTER STORAGE
 USED OIL FILTER PROCESSOR
 WASTEWATER TREATMENT PLANT
 USED OIL TRANSPORTER
 USED OIL FILTER TRANSPORTER
 USED OIL TRANSFER FACILITY

Conducted: 05/25/2006 -- 05/25/2006

SIC Code: 4953

NAIC Code: 56292

Program(s): INDUSTRIAL AND HAZARDOUS WASTE NONPERMITTED
 INDUSTRIAL AND HAZARDOUS WASTE GENERATION
 INDUSTRIAL AND HAZARDOUS WASTE PROCESSING
 USED OIL

Investigation Type : Compliance Invest File Review

Location : EAST ON HWY 225 EXIT
 RICHEY RD TURN LEFT VIER LEFT ON
 OLD RICHEY RD OVER THE RAILROAD
 TRACKS TURN FIRST LEFT INTO RICHEY
 RD

Additional ID(s) : 52123
 TXR000051540
 A85794

Address: 400 N RICHEY ST;
 PASADENA, TX 77506

Activity Type : REGION 12 - HOUSTON
 IHWRR - Record review of information submitted to the
 agency
 IHWSPL22 - Sampling investigation

Principal(s) :

Role	Name
RESPONDENT	US OIL RECOVERY LP

Contact(s) :

Role	Title	Name	Phone
Regulated Entity Contact	COMPLIANCE MANAGER	MR BILL SHAFER	Work (713) 473-0013 Fax (713) 472-5668
Regulated Entity Mail Contact	COMPLIANCE MANAGER	MR BILL SHAFER	Work (713) 473-0013 (713) 472-5668

Other Staff Member(s) :

Role	Name
QA Reviewer	CHARLES BURNER
Supervisor	JASON YBARRA

COPY 01

Associated Check ListChecklist Name
FILE REVIEW-IHWUnit Name
52123 - IHW Record ReviewInvestigation Comments :INTRODUCTION

On October 7, 2005, Mr. Edgar E. St. James, Jr. of the Texas Commission on Environmental Quality (TCEQ) Region 12 Solid Waste Section conducted a Sampling Investigation at US Oil Recovery (USOR). Ms. Chawana Como, Environmental Investigator, Waste Section, also participated in the investigation. The facility is located at 400 N. Richey Street, Pasadena (Harris County), Texas. The investigation entailed the taking of soil samples in conjunction with a complaint investigation regarding storm water management conducted by Mr. Mike Taylor, Environmental Investigator, Water Section. Based on sample results, a Notice of Violation (NOV) letter was mailed to USOR on December 5, 2005 (Attachment 1) for documented soil contamination near a manhole on the southeast side of the facility property, and storm water outfall near the front gate. USOR was required to determine the horizontal and vertical extent of contamination near the manhole and storm water outfall, and render the affected property protective of human health and the environment using Remedy Standard A or B to satisfy cleanup responsibilities specified in Title 30 Texas Administrative Code (TAC) Chapter 350 - Texas Risk Reduction Program (TRRP). USOR's Core Data Form is included in (Attachment 2).

In response to the NOV, correspondence was received from the facility on January 3 and February 10, 2006 (Attachment 3). USOR advised that the outfall was not located on their property, sampling by them indicated historical contamination, and a meeting had been requested by their attorney to discuss the alleged violation with the Houston Regional Director. A violation clarification meeting was held with USOR representatives in the Region 12 Office on April 4, 2006. The list of attendees is included in Attachment 4. During the meeting, the facility contended that the soil contamination was historical and due to industrial activity on the property prior to its acquisition by USOR. USOR requested the TCEQ to withdraw the NOV and reissue it to a prior site owner. The facility representatives were advised that a copy of the NOV had been mailed to the immediate prior owner. Hide Exporters of Texas, Inc., for informational purposes. The agency looks to the current property owner to resolve environmental problems at a site. USOR may have to seek reimbursement from a prior site owner through legal means. If USOR can identify the party that caused the contamination, the TCEQ may consider issuing an NOV to them based on the evidence. It was suggested that USOR develop a site history to determine the party whose operations resulted in the contamination. Region 12 agreed to review information provided by USOR in this regard, and determine whether it would be appropriate to issue an NOV to another party.

TCEQ representatives also advised USOR that analysis of three soil samples collected on the west side of their facility during a complaint investigation on February 23, 2006 (Investigation No. 463576) documented additional areas with chemicals of concern above TRRP Tier 1 protective concentration levels (PCLs) for commercial/industrial sites, for which remediation is required. A sample location map and photographs of the locations (E-1, E-2, and E-3) are included in Attachment 5. A summary of the constituents that exceeded TRRP Tier 1 PCLs is included in Attachment 6. USOR was given this information, as well as a copy of the lab analytical report (Attachment 7) during the meeting. The report also included results for 9 additional samples collected from waste management units and process units at USOR during the complaint investigation. Facility representatives reiterated that the contaminants found in the three soil samples were not the result of USOR's operations, but of prior site owners. The newly found areas of contamination have been added to the existing violation issued on December 5, 2006, as indicated below in the section entitled Outstanding Alleged Violation.

The three soil samples were taken at the back of the facility. Sample E-1 (Lab Sample ID No.: T12735-10) was collected from a spill area behind the tank farm (Photo 1, Attachment 5). This spill was originally found during the Pre-Opening Investigation on January 10, 2006, and is addressed in Investigation Nos. 451977 and 465213. According to USOR, it was the result of a broken pipe that discharged 50 - 100 gallons of oily water. Sample E-1 was found to contain arsenic, barium, lead, mercury, and the semivolatile organic compound benzo(a)pyrene above PCLs. In addition, the

concentration of total petroleum hydrocarbons (TPH) was found to be 2730 milligrams per kilogram (mg/kg). USOR was required to excavate and properly dispose of all contaminated soil impacted by the oily water discharge. The potentially more widespread contamination involving any alleged historical contaminants will be addressed in a separate remediation project as indicated below in the section entitled Outstanding Alleged Violation.

Sample E-2 (Lab Sample ID No.: T12735-11) was collected at the north end of the former arsenic burial pit behind the warehouse/operations building (Photo 2, Attachment 5). In 1990, arsenic contaminated soil was excavated from around the site, stabilized with lime, and buried at this location. The material was removed and disposed of by USOR in 2003, but the pit was not completely backfilled. Storm water now accumulates in the depression. Sample E-2 was found to contain the pesticide toxaphene, arsenic, and mercury above PCLs.

Sample E-3 (Lab Sample ID No.: T12735-12) was taken from an area behind the section of the warehouse/operations building that contains the boiler. Water was observed flowing from an opening in the building across the ground to the former arsenic pit. The source of the water exiting the building was two overflow lines from water softener units and an overflowing holding tank used to store treated tap water for the boiler. A sample was collected of the water and soil at a location where water had pooled next to an abandoned rail spur (Photo 3, Attachment 5). The pooled water appeared clear until the underlying soil was disturbed. A rainbow colored sheen then formed on the water surface and small droplets or globules of a light non-aqueous phase liquid became apparent. Sample E-3 was found to contain 17 constituents above PCLs, including metals, volatile organic compounds (VOCs), semivolatile organic compound (SVOCs), pesticides, and TPH. The liquid sample yielded no exceedances.

On May 25, 2006, an IHW Record Review Investigation was conducted to determine the status of the outstanding alleged violation based on compliance documentation received from USOR, the meeting of April 4, 2006, and analytical results for the soil samples collected on February 23, 2006. Based on this review, the violation has been expanded to include the findings from these samples, as indicated below.

OUTSTANDING ALLEGED VIOLATION

The following violation was documented during the investigation conducted on October 7, 2005, and was updated to include the analytical results soil samples collected on February 23, 2006:

1. 30 Texas Administrative Code 335.4(1) - General Prohibitions (Category B12)

A) During the investigation on October 7, 2005, soil samples were collected which revealed contamination requiring remediation. Analytical results showed concentrations of arsenic, lead, and mercury exceeding Texas Risk Reduction Program (TRRP) Tier 1 protective concentration levels (PCLs) for soil at commercial/industrial sites near the manhole on the southeast side of the facility property, and at the storm water outfall near the front gate. Soil at the outfall additionally contained barium in concentrations exceeding TRRP Tier 1 PCLs. The horizontal and vertical extent of contamination near the manhole and storm water outfall must be determined, and the affected property rendered protective of human health and the environment using Remedy Standard A or B to satisfy cleanup responsibilities as specified in Title 30 Texas Administrative Code (TAC) Chapter 350.

B) During an investigation on February 23, 2006, soil samples were collected from three areas behind the warehouse/processing building, which revealed contamination requiring remediation. Analytical results showed concentrations of certain metals, volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and pesticides that exceeded TRRP Tier 1 PCLs for soil at commercial/industrial sites. The following chemicals of concern were identified at concentrations above regulatory limits: arsenic, lead, mercury, barium, ethyl benzene, styrene, tetrachloroethylene, toluene, benzo(a)pyrene, benzo(b)fluoranthene, 2-methylnaphthalene, naphthalene, aldrin, beta-benzenehexachloride, gamma-benzenehexachloride (Lindane), dieldrin, and total petroleum hydrocarbons (TPH). The horizontal and vertical extent of contamination must be determined, and the affected property rendered protective of human health and the environment using Remedy Standard A or B to satisfy cleanup responsibilities as specified in Title 30 TAC Chapter 350.

Based on review of correspondence received from USOR on January 3 and February 10, 2006 (Attachment 3), a meeting held April 4, 2006 between TCEQ and USOR representatives, and analytical results for soil samples collected on February 23, 2006, this violation remains outstanding. Correspondence stated that the outfall was not located on USOR property, and it was alleged that samples collected by USOR indicated historical contamination. A map was not provided to show the location and number of samples, nor was an analytical report furnished. The facility is requested to submit this information and a compliance schedule showing anticipated dates of completion for the Affected Property Assessment Report (APAR) and Response Action Plan (RAP) required by Title 30 TAC Chapter 350.

OUTSTANDING ALLEGED VIOLATIONS

Track No: 222394

Compliance Due Date: 07/06/2005

30 TAC Chapter 335.4(1)

Alleged Violation:

Investigation: 436602

Comment Date: 11/26/2005

During the investigation on October 7, 2005, soil samples were collected which revealed contamination requiring remediation. Analytical results showed concentrations of arsenic, lead, and mercury exceeding Texas Risk Reduction Program (TRRP) Tier 1 protective concentration levels (PCLs) for soil at commercial/industrial sites near the manhole on the southeast side of the facility property, and at the storm water outfall near the front gate. Soil at the outfall additionally contained barium in concentrations exceeding TRRP Tier 1 PCLs.

Investigation: 467557

Comment Date: 05/27/2006

On May 25, 2006, an IHW Record Review Investigation was conducted to determine the status of the outstanding alleged violation based on compliance documentation received from USOR, the meeting of April 4, 2006, and analytical results for the soil samples collected on February 23, 2006. Based on this review, the violation has been expanded to include the findings from these samples, as indicated below:

A) During the investigation on October 7, 2005, soil samples were collected which revealed contamination requiring remediation. Analytical results showed concentrations of arsenic, lead, and mercury exceeding Texas Risk Reduction Program (TRRP) Tier 1 protective concentration levels (PCLs) for soil at commercial/industrial sites near the manhole on the southeast side of the facility property, and at the storm water outfall near the front gate. Soil at the outfall additionally contained barium in concentrations exceeding TRRP Tier 1 PCLs.

B) During an investigation on February 23, 2006, soil samples were collected from three areas behind the warehouse/processing building, which revealed contamination requiring remediation. Analytical results showed concentrations of certain metals, volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and pesticides that exceeded TRRP Tier 1 PCLs for soil at commercial/industrial sites. The following chemicals of concern were identified at concentrations above regulatory limits: arsenic, lead, mercury, barium, ethyl benzene, styrene, tetrachloroethylene, toluene, benzo(a)pyrene, benzo(b)fluoranthene, 2-methylnaphthalene, naphthalene, aldrin, beta-benzenehexachloride, gamma-benzenehexachloride (Lindane), dieldrin, and total petroleum hydrocarbons (TPH).

Recommended Corrective Action: The horizontal and vertical extent of contamination must be determined, and the affected property rendered protective of human health and the environment using Remedy Standard A or B to satisfy cleanup responsibilities as specified in Title 30 Texas Administrative Code (TAC) Chapter 350. The facility should submit analytical reports and a location map for soil samples taken to date by USOR to delineate site contamination. The facility is also requested to submit a compliance schedule showing anticipated dates of completion for the Affected Property Assessment Report (APAR) and Response Action Plan (RAP) required by

Title 30 TAC Chapter 350.

Resolution:

Signed Edgar C. H. Jarner, Jr.
Environmental Investigator

Date 6/2/06

Signed Quinn Bratt
Supervisor

Date 6/2/06

Attachments: (in order of final report submittal)

☐ Enforcement Action Request (EAR)

☒ Letter to Facility (specify type) : Letter

Investigation Report

☒ Sample Analysis Results

☐ Manifests

☐ NOR

☒ Maps, Plans, Sketches

☒ Photographs

☒ Correspondence from the facility

☒ Other (specify) :

see List of Attachments

Reference 28:

Texas Commission on Environmental Quality. Complaint Investigation at US Oil Recovery. Dated October 9, 2006 and written by Jason T. Ybarra. 2 pages.

Kathleen Hartnett White, *Chairman*
Larry R. Soward, *Commissioner*
Martin A. Hubert, *Commissioner*
Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

October 9, 2006

CERTIFIED MAIL # 7002 2030 0003 4755 4756
RETURN RECEIPT REQUESTED

Bill Shafer, Compliance Manager
U.S. Oil Recovery, L.P.
400 N. Richey Street
Pasadena, Texas 77506-1061

Re: Complaint Investigation at:
U.S. Oil Recovery, LP, 400 N. Richey Street, Pasadena (Harris County), Texas 77506
Regulated Entity No.: RN100604677, TCEQ ID No.: A85794

Dear Mr. Shafer:

From May 30 to June 1, 2006, Edgar E. St. James, Jr. of the Texas Commission on Environmental Quality (TCEQ) Houston Region Office conducted a Complaint Investigation of the above-referenced facility to evaluate compliance with applicable requirements for solid waste. Enclosed is a summary which lists the investigation findings. During this investigation, certain additional issues were documented, which remain outstanding. Please submit to this office by November 13, 2006 a written description of corrective action taken and the required documentation demonstrating that compliance has been achieved for the outstanding additional issues. The status of the additional issues will be determined following a review of the records submitted, and evaluation of compliance with applicable regulations.

The TCEQ appreciates your assistance in this matter. Please note that the Legislature has granted TCEQ enforcement powers which we may exercise to ensure compliance with environmental regulatory requirements. We anticipate that you will satisfactorily address the outstanding additional issues in order to protect the State's environment.

If you or members of your staff have any questions, please feel free to contact Mr. Edgar E. St. James, Jr. in the Houston Region Office at (713)767-3638.

Sincerely,

A handwritten signature in black ink, appearing to read "Jason T. Ybarra".

Jason T. Ybarra
Team Leader, Waste Section
Houston Region Office

JTY/EES/lz

STATE OF TEXAS
COUNTY OF TRAVIS

JUN 24 2006

I hereby certify this is a true and correct copy of a
Texas Commission on Environmental Quality (TCEQ)
document, which is filed in the Records of the Commission
Given under my hand and the seal of office.

A handwritten signature in black ink, appearing to read "Rick Thomas".

Rick Thomas, Custodian of Records
Texas Commission on Environmental Quality

Enclosures: Summary of Investigation Findings
REPLY TO: REGION 12 • 5425 POLK ST., STE. H • HOUSTON, TEXAS 77023-1452 • 713/767-3500 • FAX 713/767-3520

SUMMARY OF INVESTIGATION FINDINGS

U.S. Oil Recovery, L.P.
400 N. Richey St., Pasadena (Harris County), Texas 77506
TCEQ ID No.: A85794
MSW - Complaint Investigation
Investigation Dates: May 30 to June 1, 2006

SUMMARY OF OUTSTANDING ADDITIONAL ISSUES

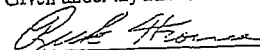
The following additional issues were noted during the Complaint Investigation conducted from May 30 to June 1, 2006:

1. During the investigation, hairline fractures were observed in the tank farm secondary containment concrete walls. Several showed seepage of oily liquid. These fractures should be repaired to maintain the integrity of the secondary containment. Please submit construction and design documentation on secondary containment for used oil processing and storage areas, including the means to ensure the walls and floors are sufficiently impervious to used oil to prevent any used oil released into the containment systems from migrating out of the systems to the soil, groundwater, or surface water. Also provide the tanks page from USOR's Spill Prevention, Control and Countermeasure (SPCC) Plan, and the certification by a registered professional engineer for the SPCC Plan.
2. It is a concern that oily waste had migrated outside of secondary containment to the concrete covered truck unloading/staging area, and a diesel spill resulted in soil contamination between the concrete and fence on the east side of the facility. Please provide the following information:
 - a) A report on the cause of the operational problem that resulted in release of sludge and oily wastewater to secondary containment areas, and migration of oily waste to the adjacent concrete unloading/staging area.
 - b) A report on corrective actions undertaken to clean up the secondary containment areas and concrete unloading/staging area.
 - c) A report on the hydrocarbon spill at the fence line, including source, quantity spilled, amount of soil removed, copy of manifest(s) for disposal of the contaminated soil, and copy of the analytical report for confirmation soil samples.

STATE OF TEXAS
COUNTY OF TRAVIS

JUN 24 2006

I hereby certify this is a true and correct copy of a
Texas Commission on Environmental Quality (TCEQ)
document, which is filed in the Records of the Commission
Given under my hand and the seal of office.



Rick Thomas, Custodian of Records
Texas Commission on Environmental Quality

Reference 29:

Texas Commission on Environmental Quality. Investigation Report for U.S. Oil Recovery LLC. Dated March 6, 2008. Written by Terry Vasut, 5 pages.

INFORMATION COPY
Texas Commission on Environmental Quality
FOR R12 FILE ROOM

AIR / RN: 100604677-1000

Investigation Report

US OIL RECOVERY LP

CN602842734

US OIL RECOVERY

RN100604677

Investigation # 637955

Incident #

Investigator: TERRY VASUT

Site Classification

Conducted: 03/06/2008 - 03/06/2008

SIC Code: 4953

NAIC Code: 56292

Program(s): AIR QUALITY NON PERMITTED

Investigation type: Compliance Invest File Review

Location: 400 N Richey Street, Pasadena, TX

Additional ID(s):

Address: 400 N RICHEY ST

Activity Type:

REGION 12 - HOUSTON

PASADENA TX 77506

AIRPL Follow-up Compliance Investigation

Principal(s):

Role:

Name

RESPONDENT

US OIL RECOVERY LP

Contact(s):

Role:

Title

Name

Phone

Regulated Entity Contact

PRESIDENT

MR. LAUS

Work: (713) 473-0043

Regulated Entity Contact

SALES MANAGER

STARUSTKA

Regulated Entity Contact

OPERATIONS MANAGER

BRAD

Regulated Entity Contact

COMPLIANCE COORDINATOR

MS. ALITA CHAMPAGNE

Work: (713) 859-0528

Other Staff Member(s):

Role:

Name

QA Reviewer

JASON HARRIS

Supervisor:

JASON HARRIS

Associated Check List

Checklist Name

Unit Name

AIR GENERIC INVESTIGATION (10 ITEMS)

Sitewide

Investigation Comments:

INTRODUCTION/ INVESTIGATION SUMMARY

Introduction

On March 6, 2008, Terry Vasut, Environmental Investigator for the Texas Commission on Environmental Quality (TCEQ), conducted a follow-up record review investigation (AIR FI) for U.S. Oil Recovery LP (USOR), located at 400 N. Richey St. in Pasadena, which included a review of outstanding air violations as well as information from a recent air sampling event.

On March 8, 2007, Vivekananda Kini conducted a complaint investigation (Incident 87300, Investigation 556940) at USOR. The complainant alleged that USOR was building an aeration basin and had not

applied for an air permit. Mr. Shafer, a facility representative, indicated to Mr. Kini that the aeration basin was operating under Permit by Rule (PBR) 30 Texas Administrative Code (TAC) 106.532, and that the wastewater was discharged to a Publicly Owned Treatment Works (POTW), in this case, the City of Pasadena. The City of Pasadena provided Mr. Kini with samples obtained from the manhole where USOR discharges wastewater. Sample results indicated high levels of VOC. A violation of 30 TAC 116.110(a) (1) was issued to USOR for failure to obtain authorization after it was determined they did not meet the PBR requirements under 106.532 (violation tracking number 274537). In response to the violation, USOR submitted a compliance plan detailing improvements to the aeration basin.

On December 14, 2007, personnel from the TCEQ Monitoring Operations Division (MonOps) performed monitoring at several locations along the ship channel in Pasadena. While patrolling offsite near the northwest corner of USOR, MonOps personnel acted in response to a real-time maximum concentration of 160 ppbv benzene indicated by a portable monitoring device (PetroPRO portable gas chromatograph).

Offsite sampling included a canister (Sample ID: GP0712-82) pulled downwind at 3:28 PM in the utility easement (Site #73) approximately 50 yards from the northwest corner of the USOR property fence line. Laboratory analysis indicates 170ppbv benzene, 580ppbv toluene, and 670ppbv m-xylene + p-xylene (xylene). At 3:42 p.m., a second canister (GP0712-83) was pulled at this site indicating 300ppbv benzene, 980ppbv toluene, and 580ppbv xylene. At 5:11 p.m., a third canister (GP0712-87) was pulled indicating 200ppbv benzene, 710ppbv toluene, and 460ppbv xylene. At 5:46 p.m., a canister (GP0712-136) was pulled upwind of the facility (Site #13) on N. Richey Rd. approximately 10 yards from the USOR fence line. Laboratory analysis indicates 0.58ppbv benzene, 0.42ppbv toluene, and 0.19ppbv xylene.

At approximately 5:30 p.m., MonOps and Houston Region personnel were denied entry to the site.

That same evening at 7:52 p.m., a canister (GP0712-76) was pulled downwind at the utility easement (Site #72) approximately 20 yards from the northwest corner of the USOR fence line. Laboratory analysis indicates 130ppbv benzene, 760ppbv toluene, and 460ppbv xylene. An upwind canister (GP0712-81) pulled at 11:24 p.m. 130 yards south of USOR property (Site# 64) indicated 0.33ppbv benzene, 0.26ppbv toluene, and 0.07ppbv xylene. Detailed analytical data and a map showing sampling locations can be found in Attachments 1 and 2 respectively.

On December 17, 2007, a Multi-Media investigation (CCEDs Investigation 616357) was conducted by Terry Vasut of the Air Section, Mike Taylor with Water Quality (WQ), Wajid Zahidi, Jason Ybarra, and Edgar St. James with Industrial and Hazardous Waste (IHW), Tim Doty and Eugene Martinez with MonOps, and Mark Leidig with the Field Operations Support Division. Representing USOR were Klaus Genssler, owner, Tom Starustka, Sales Manager, Brad Roundtree, Project Manager, and Alita Champagne, Environmental Manager. The purpose of the investigation was to determine the source of the benzene emissions reported by MonOps. GasFindIR imagery, digital images, video imagery and water, soil, and air samples were obtained from the site. It must be noted that the entire facility was shut down during this investigation. There were no pumps running and no movement of liquid between the twenty-four tanks located on site. Soil around the aeration basin had been re-graded since December 14. The concrete walls of the aeration basin were in the process of being painted black (approximately 75% complete). There were several waste water trucks staged to unload material as the onsite investigation was conducted. A heavy odor of solvents, chemicals, and hydrocarbons was evident throughout the facility.

TVA readings downwind of the tanks indicated 53 ppm VOC on top of the aeration basin which was filled to within 3" of the top of the retaining walls. The PetroPRO monitor indicated 0ppb benzene, 841ppb toluene, and 655ppb ethylbenzene. Multiple canisters were pulled onsite. Canister (GP0712-63) was pulled on top of the aeration basin (Site #101) at 1:41 p.m. Laboratory analysis indicates 16ppbv benzene, 1,100ppbv toluene, and 2,800ppbv xylene. Another canister (GP0712-65) was pulled on top of the aeration basin at 2:04 p.m. Laboratory analysis indicates 2.4ppbv benzene, 180ppbv toluene, and 500ppbv xylene. At 1:45 p.m., canister (GP0712-133) was pulled at the north end of the basin (Site#104) indicating 3.5ppbv benzene, 190ppbv toluene, and 640ppbv xylene. At 2:15p.m., canister (GP0712-137) was pulled 25 feet from the northwest corner (Site # 105) of the aeration basin indicating 11ppbv benzene, 680ppbv toluene, and 1,700ppbv xylene. At 2:42 p.m., canister (GP0712-86) was pulled inside the processing area (Site# 102) indicating 5.8ppbv benzene,

of benzene, toluene, and 230ppbv xylene. At 2:55 p.m., canister (GR0712-0) was pulled onsite in the parking lot (Site #103) generally upwind of the process area indicating 0.30ppbv benzene, 0.09ppbv toluene, and 0.02ppbv xylene. Again, it is important to note that the facility was not in operation at the time these samples were collected and it was apparent USOR had gone to great lengths to clean up the site between December 14 and December 17, 2007.

GENERAL FACILITY AND PROCESS INFORMATION

USOR is a waste water pre-treatment and oil recovery facility. Waste is received by truck and pumped into a shaker to remove solids which are sent to a Class I landfill. Liquids are pumped to an oil/water separator. Recovered oil is collected in tanks and shipped out via truck for sale. Wastewater is sent to an aeration basin and then discharged to the City of Pasadena POTW.

BACKGROUND

Current Enforcement Actions

Based on this investigation, the regulated entity is in violation of the following rules and regulations:

(1) Failure to authorize air emissions from the site, which constitutes a violation of 30 TAC 116.110(a) (1) which states, "before any actual work is begun on the facility, any person who plans to construct any new facility or to engage in the modification of any existing facility which may emit air contaminants into the air of this State shall obtain a permit under 30 TAC 116.111 of this title" (unresolved, CATEGORY B5.a violation).

(2) Failure to prevent the emission of air contaminants that cause or contribute to air pollution. This constitutes a violation of the Texas Health and Safety Code, Sec. 382.085(a) (CATEGORY A6 violation).

Agreed Orders, Court Orders, and Other Compliance Agreements

USOR is currently under enforcement by the TCEQ for both waste and wastewater violations.

Complaints

There were 29 complaints received against this facility for the past 5 years.

Prior Enforcement Issues

There were twenty NOVs issued to USOR during the five-year period prior to this investigation. These NOVs involved violations of Industrial Hazardous Waste and Water Quality regulations. One outstanding violation of Air regulations exists. The facility has submitted a compliance plan regarding this violation; however, USOR has failed to meet the conditions and timeframes of this plan.

ADDITIONAL INFORMATION

Conclusions and Recommendations

USOR has failed to meet the conditions and timeframes set forth in the compliance plan designed to ensure compliance with the violation of 30 TAC 116.110(a)(1) issued May 29, 2007. Air emissions generated during operation of the facility are not authorized. This violation remains unresolved.

Analysis of air samples collected downwind of USOR on December 14, 2008 document contaminant levels which exceed the TCEQ Effects Screening Levels (ESL's) for benzene, toluene, and xylene. USOR is located in a TCEQ Air Pollution Watch List (APWL) area. This APWL was created due to concern over long-term benzene concentrations measured at the Galena Park monitor. As noted in a health effects review of air samples, "USOR is located predominantly upwind in relation to the Galena Park monitor and benzene emissions would be contributing to existing benzene levels that are of concern regarding potential to cause benzene-related long-term health effects in the neighborhood surrounding the Galena Park monitor." The health effects review memo (Attachment 4) also notes that "odorous concentrations of toluene and xylene were measured downwind of USOR during multiple sampling periods and these concentrations were consistent with odors reported by mobile monitoring staff. The reported concentrations of toluene and xylene can cause odor-related health effects, such as headaches and nausea. One member of the mobile monitoring staff experienced a moderate headache and another member experienced slight throat irritation." Based on the air contaminant levels

March 06 08 Inv. # - 637955

Page 4 of 5

documented downwind of USOR and the fact that the nature and magnitude of these emissions tend to be injurious to human health and the environment, a Notice of Enforcement (NOE) will be issued to USOR for violation of Texas Health and Safety Code, Sec. 382.085(a) which states, "a person may not cause, suffer, allow, or permit the emission of any air contaminant or the performance of any activity that causes or contributes to, or that will cause or contribute to, air pollution".

Additional Issues.

There were no additional issues.

Report Attachments.

- 1) Analytical Results
- 2) Sampling Site Locations
- 3) Location of USOR and Galena Park Monitor
- 4) Health Effects Review Memo

OUTSTANDING ALLEGED VIOLATIONS

Track No: 274537

Compliance Due Date: 06/29/2007

30 TAC Chapter 116.110(a)(1)

5C THC Chapter 382.085(b)

Alleged Violation:

Investigation: 556940

Comment Date: 05/25/2007

As a result of Complaint Investigation No. 556940 conducted on March 8, 2007, the Texas Commission on Environmental Quality (TCEQ) Houston Regional Office determined that US Oil Recovery failed to obtain an air permit prior to operating a wastewater pretreatment system consisting of an aeration basin, which has volatile organic compounds (VOC). This constitutes a violation of 30 TAC §116.110(a)(1), which states, "Before any actual work is begun on the facility, any person who plans to construct any new facility or to engage in the modification of any existing facility which may emit air contaminants into the air of this state shall obtain a permit under 30 TAC §116.111 of this title."

This also constitutes a violation of Texas Health and Safety Code 382.085(b), which states that a person may not cause, suffer, allow, or permit the emission of any air contaminant or the performance of any activity in violation of any commission rule or order.

Investigation: 637955

Comment Date: 04/07/2008

During the record review investigation conducted on March 6, 2008, it was determined that U.S. Oil Recovery, L.P. failed to obtain authorization for air emissions generated during operation of the site. This is an unresolved violation initially noted during a complaint investigation on March 8, 2007.

Recommended Corrective Action: The facility must obtain an air permit from the TCEQ prior to operation.

Resolution:

Track No: 304765

Compliance Due Date: 05/09/2008

30 TAC Chapter 116.110(a)(1)

Alleged Violation:

Investigation: 637955

Comment Date: 04/07/2008

Analysis of air samples collected downwind of U.S. Oil Recovery, L.P. (USOR) document levels of benzene, toluene and xylenes which exceed their respective TCEQ effects screening levels. USOR is located in an air pollution watch list area for benzene and lies predominantly upwind from the Galena Park air monitoring station. As noted in the toxicological review of air samples taken downwind of USOR, benzene emissions from USOR "would be contributing to existing benzene levels that are of concern regarding potential to cause benzene-related long-term health effects in the

US OIL RECOVERY - PASADENA

March 06 08 Inv. # - 637955

Page 5 of 5

neighborhood surrounding the Galena Park monitor." The health effects review also notes that "odorous concentrations of toluene and xylene were measured downwind of USOR during multiple sampling periods... The reported concentrations of toluene and xylene can cause odor-related health effects, such as headaches and nausea. One member of the mobile monitoring staff experienced a moderate headache and another member experienced slight throat irritation." Based on the air contaminant levels documented downwind of USOR, which would contribute to benzene levels in and around the Galena Park monitor, and the health effects noted by mobile monitoring staff, a Notice of Enforcement will be issued to USOR for violation of the Texas Health and Safety Code 382.085(a) which states that, "a person may not cause, suffer, allow, or permit the emission of any air contaminant or the performance of any activity that causes or contributes to, or that will cause or contribute to, air pollution."

Recommended Corrective Action: Cease or modify operations to reduce the emission of contaminants which may travel off-site.

Resolution:

Signed

[Signature]
Environmental Investigator

Date

4-9-08

Signed

[Signature]
Supervisor

Date

4/9/2008

Attachments: (in order of final report submittal)

☐ Exit Interview Form

☒ Enforcement Action Request (EAR)

☒ Letter to Facility (specify type) : NDE

☐ Investigation Report

☒ Sample Analysis Results

☐ Manifests

☐ NOR

☒ Maps, Plans, Sketches

☐ Photographs

☐ Correspondence from the facility

☐ Other (specify) :

Reference 30:

US Oil Recovery. NRC Report No. 905711. Dated October 12, 2009. 4 pages.



52123

400 N. Richey Street
Pasadena, Texas 77506
Tel. 713.473.0013
Fax. 713.472.5668

INFORMATION COPY

Texas Natural Resource Conservation Commission
5425 Polk Avenue, Suite H
Houston, Texas 77023
Attn.: Mr. Mike Davis
Emergency Response Coordinator
Water Section

RE: NRC Report No. 905711

October 12, 2009

RECEIVED
OCT 12 2009
REGION 12

Dear Mr. Davis

This letter reports the successful completion of remediation activities following an industrial water spill on March 14, 2009 from US Oil Recovery's West Side Bioreactor. This report is being presented on a timely basis, as it is due on October 15 per the informal email extension by the TCEQ (see attachment 1).

Affected soil was excavated and transported off-site. Contaminated soil was disposed off at Fort Bend Landfill. Once the affected soils were removed, samples were collected and analyzed for metals and volatile and semi volatile organics to confirm that the site remediation objective of compounds of concern to levels below Tier 1 Commercial/Industrial Soil PLC's had been achieved. Field activities are described in more detail in the paragraphs below.

BACKGROUND

On March 14 at about noon a small section of the top of the West Side Bioreactor was breached (see picture #1 showing the Bioreactor breach) and allowed a few hundred gallons of industrial wastewater stored in the Bioreactor to spill onto the ground. The spilled material ran north on the property about 150 feet and then outside of the property another 200 feet further north, where it stopped. No material ever got into the waterways. Attachment 2 is a map with the area affected by the spill.

As part of the incident, the two Bioreactors incurred partial structural failure.



400 N. Richey Street
Pasadena, Texas 77506
Tel: 713.473.0013
Fax: 713.472.5668

USOR promptly notified the appropriate agencies (see attachment 3 "Remedial Plan) and developed a plan for containing the spilled material (see Remedial Plan) and a phased emergency plan for the Distressed Basin, consisting of:

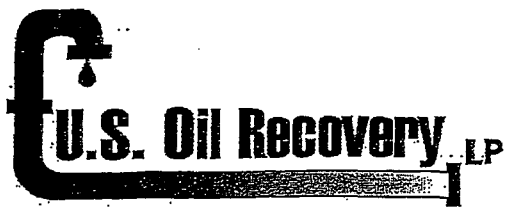
- 1) On March 14 the Bioreactors were full and contained about 600,000 gallons of a water/solids mixture. Promptly after the occurrence of the distress of the basin, USOR rented mobile frac tanks and started to remove material around the clock to safe levels.
- 2) On March 16 (first business day after the incident) USOR retained the services of the engineering firm Walter P Moore. Walter P Moore reviewed the construction drawings of the Basin and its condition after the incident and determined that a safe level for the Basin is 11 feet. Furthermore Walter P Moore recommended that as an additional safe guard USOR have new retention bars installed along the distressed sites of the Basin (see Attachment 4 "Engineering Report").
- 3) USOR adopted the recommendation of Walter P Moore and by March 18 had Xavier Structures reinstall the retention bars. Furthermore by March 18 USOR had removed about 200,000 gallons from the Basin lowering the levels to about 11 feet.
- 4) As of this date, USOR has removed 90% of the material from the Bioreactors and plans to complete removal within the next 30 days. About 400,000 gallons of material removed from the Basin is stored at the site in roll off boxes and will be processed and disposed off.

WASTE REMOVAL OPERATIONS

Removal operations consisted of removal of liquids by vacuum truck and subsequent removal of about 3 inches of soil by dozer, backhoe and hand excavation from the affected areas. The dozer and backhoe were used in open areas. Laborers using shovels worked areas adjacent that were difficult to access with heavy equipment. All removed liquids were pumped into USOR's process equipment and processed in accordance with its Solid Waste Permit. Excavated soil was accumulated in a pile prior to disposal. Remediation activities were completed within 1 week of the incident. Pictures #2 and #3 show the affected area upon completion of remediation.

WASTE DISPOSAL

115 yards of soil were sent within the two weeks after the incident to Fort Bend Landfill for disposal. Copies of manifests are provided in Attachment 9.



400 N. Richey Street
Pasadena, Texas 77506
Tel. 713.473.0013
Fax. 713.472.5668

POST CLEANUP ANALYTICAL RESULTS

Upon completion of affected soil removal, post closure 19 initial and 5 additional soil samples were collected. Post closure sample locations were selected in accordance with the Sampling Plan in Attachment 5, covering the affected area. Attachment 6, pictures 4-26, show the samples being taken at their respective locations. Soil samples were immediately placed in laboratory jars. The jars were filled, sealed, labeled, and picked up by A&B laboratory. Strict chain-of-custody was maintained at all times.

Post closure analytical results for semi volatile and volatile compounds show no contamination.

Results for Metal Analysis on USOR Property

Post closure analytical results for metals for samples taken on USOR's property show that they are below Tier 1 Commercial/Industrial Soil PLC's. Sample A1-4 was taken a second time because of the elevated arsenic level the first time around. The repeat sample shows an arsenic level below the Tier 1 Commercial/ Industrial Soil PLC's.

Results for Metal Analysis outside of USOR Property

Some of the samples taken on affected areas outside of the USOR property show elevated arsenic levels. Samples A1-8, A1-12A, A1-13A and A1-14A were taken a second time but still showed elevated levels of arsenic. USOR did not cause the arsenic contamination as part of the spill, as follows:

- 1) USOR does not receive any arsenic bearing materials at its facility and the material in the Bioreactors did not contain arsenic bearing material.
- 2) The area of Pasadena where USOR's property is located is known to have arsenic contamination. USOR's 400 North Richey property was remediated for arsenic contamination by its prior owner under order by the TCEQ. The samples taken on USOR's property as part of this remediation demonstrate that arsenic contamination on the property done by the prior owner was successful.

Analytical results are summarized in Attachment 7 and the actual results in Attachment 8. Copies of signed laboratory reports and chain-of-custody documentation are included as Attachment 8.



400 N. Richey Street
Pasadena, Texas 77506
Tel. 713.473.0013
Fax. 713.472.5668

CONCLUSIONS

The Bioreactor spill has been successfully remediated to pre-release conditions. Accordingly, we respectfully request case closure. Please call me at (713) 473 0013 if you have any questions. It has been a pleasure working with you on this project.

Sincerely yours

US Oil Recovery LP

A handwritten signature in dark ink, appearing to read 'Genssler', is written over a horizontal line.

By: _____
Klaus Genssler, President

Cc: Mr. Bryant Smalley
Superfund Division (6SF-PC)
U.S. EPA Region 6
1445 Ross Avenue
Dallas, Texas 75202-2733

Reference 31:

Texas Water Development Board. Aquifers of the Gulf Coast of Texas (Report 365). Available at <http://www.twdb.state.tx.us>.



Texas Water Development Board

Report 365

Aquifers of the Gulf Coast of Texas

edited by
Robert E. Mace,
Sarah C. Davidson,
Edward S. Angle, and
William F. Mullican, III

February 2006

Reference 32:

**US Oil Recovery LLC. Affected Property Assessment Report (APAR). Reg. I.D.
No. SWR52123 at 400 North Richey, Pasadena, Texas 77506. Dated May 16,
2002. 270 pages.**

SWR # 52123

CAS DOC #

16655

PROJ. MGR

B. Wilkinson

AFFECTED PROPERTY ASSESSMENT

Working copy

Reg. I. D. No. SWR52123

**400 North Richey
Pasadena, Texas 77506**

Received

JUN 07 2002

**Remediation Division
Corrective Action Section**

May 16, 2002

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
Affected Property Assessment Report Form

Cover Page

Regulatory ID number (Solid waste registration number, VCP ID number, etc) SWR 52123
check one: ☒ Initial submittal for this on-site property ☐ Subsequent submittal for this on-site property
Report date: 5-16-2002 TNRCC Region No.: 12

Reason for submittal: ☐ Notice of deficiency letter ☐ Enforcement order
☐ Permit ☐ Directives letter
☒ Voluntary response ☐ Other: _____

TNRCC Program (check one)

☒ Corrective Action (Mail Code 127) ☐ Superfund PRP Lead (Mail Code 143)
☐ Voluntary Cleanup Program (Mail Code 221) ☐ Superfund Site Assessment (Mail Code 142)
☐ Superfund State Lead (Mail Code 143) ☐ Municipal Solid Waste Permits (Mail Code 124)

On-Site Property Information

On-Site Property Name: COMMERCIAL/INDUSTRIAL SITE
Physical Address:
Street no. 400 Pre dir: N Street name: RICHEY Street type: ST. Post dir: _____
City: PASADENA County: HARRIS County Code: 101 Zip: 77506
Nearest street intersection or location description: _____

Latitude: Degrees, Minutes, Seconds OR Decimal Degrees (indicate one) North 29° 43' 07"
Longitude: Degrees, Minutes, Seconds OR Decimal Degrees (indicate one) West 95° 13' 17"

Affected Off-Site Property Information

Affected Off-Site Property Name: NA
Physical Address:
Street no. _____ Pre dir: _____ Street name: _____ Street type: _____ Post dir: _____
City: _____ County: _____ County Code: _____ Zip: _____
Attach additional page if needed to list all affected off-site properties.
☒ Check if no off-site properties affected.

Received

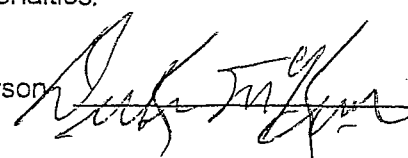
JUN 07 2002

Remediation Division
Corrective Action Section

Contact Person for On-Site Property Information and Acknowledgement

Person (or company) Name: _____
Contact Person: DECKER MCKIM Title: _____
Mailing Address: 6019 FAIRMONT PARKWAY, SUITE B
City: PASADENA State: TEXAS Zip: 77505 E-mail address: _____
Phone: _____ Fax: _____

By my signature below, I acknowledge the requirement of §350.2(a) that no person shall submit information to the executive director or to parties who are required to be provided information under this chapter which they know or reasonably should have known to be false or intentionally misleading, or fail to submit available information which is critical to the understanding of the matter at hand or to the basis of critical decisions which reasonably would have been influenced by that information. Violation of this rule may subject a person to the imposition of civil, criminal, or administrative penalties.

Signature of Person:  Name, print: Decker McKim Date: 5-17-02

Executive SummaryID No.:
Report date:

Summarize the assessments for all affected properties included in this report. Be sure to complete and submit the Checklist for Report Completeness. **Attach a chronology of activities associated with the referenced affected property(ies).**

On-Site Property Name: _____ Land use: residential ☒ commercial/industrial
City: PASADENA County: HARRIS

Does the person own the on-site property? ☒ Yes ☐ No

Describe the nature of the release, estimated volume of release if known, general assessment methods, and indicate if it was an on-going or historical release, and what was done to stop the release if it was on going.

SITE WAS FORMER TANNING FACILITY THAT UTILIZED ARSENIC IN THE PROCESS. SITE HAS BEEN CLEANED TO TACC TIER 1 PCL FOR ARSENIC.

Does this report document completion of the assessment in accordance with §350.51 or is additional assessment warranted?

☒ Assessment is complete ☐ Additional assessment needed. Describe additional assessment activities below:

Is this report the only assessment report submitted to date? ☒ Yes ☐ No – date(s) of report(s): _____

What are the general categories of COCs that are or have been present at the affected property?

☐ petroleum hydrocarbons

☐ halogenated hydrocarbons

☐ VOCs

☐ pesticides

☐ metals

☐ inorganics (specify) _____

☒ other (specify): ARSENIC

Were the COCs in each affected media defined to the assessment levels? ☒ Yes ☐ No

If no, explain why the extent of the COCs was not defined, and include in the Conclusions and Recommendations section the actions that will be taken to meet these criteria.

Environmental Media	Check if sampled on-site	Check if affected on-site above residential assessment levels	Check if sampled off-site	Check if affected off-site above residential assessment levels	Indicate whether the extent of COCs above the residential assessment level is stabilized or expanding		
Soil	<input checked="" type="checkbox"/>				stabilized	expanding	unk
Groundwater	<input checked="" type="checkbox"/>				stabilized	expanding	unk
Surface water					stabilized	expanding	unk
Sediment					stabilized	expanding	unk
Outdoor air					stabilized	expanding	unk

Were all efforts made to identify potential receptors and completed or reasonably anticipated to be completed exposure pathways identified? ☒ Yes ☐ No

If no, explain why the potential receptors or pathways were not identified, and include in the Conclusions and Recommendations section the actions that will be taken to meet these criteria.

Checklist for Report Completeness

ID No.: 5 R52/23
Report date: 5-16-2002

APAR Form Contents

Use this checklist to determine the portions of the form that must be submitted for each affected property in this assessment. Answer all questions by checking Yes or No. If the answer is Yes, include that portion of the form. If the answer is No, do not complete or submit that portion of the form. All form contents that are marked "Required" must be submitted or the form will be considered incomplete. Form contents marked with an asterisk (*) are not included in the form and are provided by the person.

Report Contents

Required	Cover Page	<input checked="" type="checkbox"/>
Required	Executive Summary	<input checked="" type="checkbox"/>
Required	Chronology*	<input checked="" type="checkbox"/>
Required	Checklist for Report Completeness	<input checked="" type="checkbox"/>
Required	Worksheet 1.0 Environmental Setting	<input checked="" type="checkbox"/>
Required	Attachment 1A* Topographic Map	<input checked="" type="checkbox"/>
Required	Worksheet 1.1 On-Site Property Use	<input checked="" type="checkbox"/>
Required	Attachment 1B* On-Site Property Map	<input checked="" type="checkbox"/>
Required	Worksheet 1.2 List of Affected Properties	<input checked="" type="checkbox"/>
Required	Worksheet 2.0 Affected Property	<input checked="" type="checkbox"/>
Required	Attachment 2A* Affected Property Map	<input checked="" type="checkbox"/>
Required	Worksheet 2.1 Geology/Hydrogeology	<input checked="" type="checkbox"/>
Required	Attachment 2B* Geologic Map	<input checked="" type="checkbox"/>
No <input type="checkbox"/>	Were groundwater-level measurements taken from at least 3 different monitoring points?	<input checked="" type="checkbox"/> Yes
No <input type="checkbox"/>	Were depth-to-groundwater measurements taken?	<input checked="" type="checkbox"/> Yes
Required	Attachment 2C* Groundwater Gradient Map	<input checked="" type="checkbox"/>
Required	Attachment 2D* Groundwater Measurements Table	<input checked="" type="checkbox"/>
Required	Attachment 2E* Boring Logs and Monitor Well Completion Details	<input checked="" type="checkbox"/>
Required	Attachment 2F* Cross Sections	<input checked="" type="checkbox"/>
Required	Worksheet 3.0 Receptor Survey	<input checked="" type="checkbox"/>
No <input checked="" type="checkbox"/>	Is a search for other potential sources required by the program area?	<input type="checkbox"/> Yes
Required	Worksheet 3.1 Other Potential Sources	<input type="checkbox"/>
Required	Attachment 3A* Affected Property Vicinity Map	<input checked="" type="checkbox"/>
Required	Worksheet 3.2 Water Well Survey	<input checked="" type="checkbox"/>
Required	Attachment 3B* Water Well Map	<input checked="" type="checkbox"/>
Required	Worksheet 3.3 Ecological Tier 1 Exclusion Criteria Checklist	<input checked="" type="checkbox"/>
Required	Attachment 3C* Exclusion Criteria Attachments	<input checked="" type="checkbox"/>
Required	Worksheet 4.0 Exposure Pathways	<input checked="" type="checkbox"/>

Checklist for Report Completeness

ID No.: 5 252123
Report date: 5-16-2002

Report Contents

No <input checked="" type="checkbox"/>	Are there COCs present for which toxicity factors or chemical/physical properties are different from those listed in rule §350.73(c) or in guidance?	<input type="checkbox"/> Yes	Worksheet 4.1 Toxicity Factors and Chemical/Physical Parameters	<input type="checkbox"/>
No <input checked="" type="checkbox"/>	Did any COCs meet the criteria in §350.71(k) for screening from PCL development?	<input type="checkbox"/> Yes	Worksheet 4.2 Screening COCs from PCL Development	<input type="checkbox"/>
No <input type="checkbox"/>	Were any soil samples collected for field screening or analysis?	<input checked="" type="checkbox"/> Yes	Worksheet 5.0 Soil Assessment	<input checked="" type="checkbox"/>
			Attachment 5A* Soil Data Summary Tables	<input checked="" type="checkbox"/>
No <input type="checkbox"/>	Were any surface soil samples collected for field screening or analysis?	<input checked="" type="checkbox"/> Yes	Worksheet 5.1 Surface Soil COC Summary	<input type="checkbox"/>
			Worksheet 5.2 Surface Soil PCL Evaluation	<input type="checkbox"/>
			Worksheet 5.3 Surface Soil Risk Level and Hazard Check	<input type="checkbox"/>
No <input type="checkbox"/>	Were any surface or subsurface soil samples collected for field screening or analysis?	<input checked="" type="checkbox"/> Yes	Worksheet 5.4 Surface and Subsurface Soil PCL Evaluation	<input type="checkbox"/>
No <input type="checkbox"/>	Were any surface soil samples collected for field screening or analysis?	<input checked="" type="checkbox"/> Yes	Worksheet 5.5 Critical Surface Soil PCLs	<input type="checkbox"/>
			Attachment 5B* Surface Soil COC Concentration Maps	<input checked="" type="checkbox"/>
No <input type="checkbox"/>	Were any subsurface soil samples collected for field screening or analysis?	<input checked="" type="checkbox"/> Yes	Worksheet 5.6 Subsurface Soil COC Summary	<input checked="" type="checkbox"/>
			Worksheet 5.7 Subsurface Soil PCL Evaluation	<input type="checkbox"/>
			Worksheet 5.8 Subsurface Soil Risk Level and Hazard Check	<input type="checkbox"/>
			Worksheet 5.9 Critical Subsurface Soil PCLs	<input type="checkbox"/>
			Attachment 5C* Subsurface Soil COC Concentration Maps	<input type="checkbox"/>
No <input type="checkbox"/>	Were any groundwater samples collected for field screening or laboratory analysis?	<input checked="" type="checkbox"/> Yes	Worksheet 6.0 Groundwater Assessment	<input checked="" type="checkbox"/>
			Worksheet 6.1 Groundwater COC Summary	<input type="checkbox"/>
			Worksheet 6.2 Groundwater PCL Evaluation	<input type="checkbox"/>
			Worksheet 6.3 Groundwater Risk Level and Hazard Check	<input type="checkbox"/>
			Worksheet 6.4 Critical Groundwater PCLs	<input type="checkbox"/>
			Attachment 6A* Groundwater Data Summary Tables	<input checked="" type="checkbox"/>
			Attachment 6B* Groundwater COC Concentration Maps	<input type="checkbox"/>
No <input checked="" type="checkbox"/>	Were any surface water or sediment samples collected for field screening or laboratory analysis?	<input type="checkbox"/> Yes	Worksheet 7.0 Surface Water and Sediment Assessment	<input type="checkbox"/>
			Worksheet 7.1 Surface Water and Sediment COC Summary	<input type="checkbox"/>
			Worksheet 7.2 Surface Water and Sediment PCL Evaluation	<input type="checkbox"/>
			Attachment 7A* Surface Water and Sediment Data Summary Tables	<input type="checkbox"/>
			Attachment 7B* Surface Water and Sediment COC Concentration Maps	<input type="checkbox"/>

Checklist for Report Completeness

ID No.: 52123
Report date: 5-16-2002

Report Contents

<input checked="" type="checkbox"/>	Were any outdoor air or underground utility samples collected for field screening or laboratory analysis?	<input type="checkbox"/> Yes	Worksheet 8.0 Outdoor Air Assessment	<input type="checkbox"/>
			Attachment 8A* Outdoor Air Data Summary Tables	<input type="checkbox"/>
			Attachment 8B* Outdoor Air COC Concentration Maps	<input type="checkbox"/>
No <input checked="" type="checkbox"/>	Were any indoor air samples collected for field screening or laboratory analysis?	<input type="checkbox"/> Yes	Worksheet 8.1 Indoor Air Assessment	<input type="checkbox"/>
			Attachment 8C* Indoor Air Data Summary Tables	<input type="checkbox"/>
			Attachment 8D* Indoor Air COC Concentration Maps	<input type="checkbox"/>
No <input checked="" type="checkbox"/>	Was a Tier 2 or Tier 3 ecological risk assessment or an expedited stream evaluation conducted?	<input type="checkbox"/> Yes	Attachment 9A* Tier 2 or Tier 3 Ecological Risk Assessment	<input type="checkbox"/>
No <input checked="" type="checkbox"/>	Were any other miscellaneous assessment or investigation activities conducted?	<input type="checkbox"/> Yes	Worksheet 10.0 Miscellaneous Media Assessment	<input type="checkbox"/>
			Attachment 10A* Miscellaneous Media Maps	<input type="checkbox"/>
			Attachment 10B* Miscellaneous Media Tables	<input type="checkbox"/>
		Required	Appendix 1* Reference List	<input type="checkbox"/>
No <input checked="" type="checkbox"/>	Are there any water wells within the search radius for the field survey and the records survey?	<input type="checkbox"/> Yes	Appendix 2* Water Well Records	<input type="checkbox"/>
No <input type="checkbox"/>	Were any groundwater samples collected from borings, push probes, or monitor wells?	<input checked="" type="checkbox"/> Yes	Appendix 3* Monitor Well Reports	<input type="checkbox"/>
No <input checked="" type="checkbox"/>	Were any assessment levels, RBELs or PCLs calculated under Tier 2 or 3?	<input type="checkbox"/> Yes	Appendix 4* Derivation of Assessment Levels, RBELs, and PCLs	<input type="checkbox"/>
No <input checked="" type="checkbox"/>	Were any media samples collected for analysis?	<input type="checkbox"/> Yes	Appendix 5* Laboratory Data Packages, Data Usability Summaries, and DQOs	<input checked="" type="checkbox"/>
No <input checked="" type="checkbox"/>	Were any investigation derived wastes generated that were not reported through STEERS?	<input type="checkbox"/> Yes	Appendix 6 Investigation Derived Waste	<input type="checkbox"/>
			Appendix 7* Waste Disposition Documentation	<input type="checkbox"/>
No <input checked="" type="checkbox"/>	Was any waste generated and analyzed?	<input type="checkbox"/> Yes	Appendix 8* Waste Characterization Analytical Reports and Lab QA/QC	<input type="checkbox"/>
No <input checked="" type="checkbox"/>	Were any samples collected for the determination of background?	<input type="checkbox"/> Yes	Appendix 9* Background Data Table and Calculations	<input type="checkbox"/>
No <input checked="" type="checkbox"/>	Were any statistical analyses performed?	<input type="checkbox"/> Yes	Appendix 10* Statistics Data Table and Calculations	<input type="checkbox"/>
No <input checked="" type="checkbox"/>	Were any photographs taken?	<input type="checkbox"/> Yes	Appendix 11* Photographic Documentation	<input type="checkbox"/>
No <input checked="" type="checkbox"/>	Were any notifications required?	<input type="checkbox"/> Yes	Appendix 12* Notifications	<input type="checkbox"/>
No <input checked="" type="checkbox"/>	Are SOPs needed to document activities conducted?	<input type="checkbox"/> Yes	Appendix 13* Standard Operating Procedures	<input type="checkbox"/>
No <input checked="" type="checkbox"/>	Was a health and safety plan used to derive the air inhalation RBEL?	<input type="checkbox"/> Yes	Appendix 14* OSHA health and safety plan	<input type="checkbox"/>

CHRONOLOGY

June 24, 2001 soil and groundwater samples were collected from the subject site to document that arsenic concentrations were below the TNRCC Tier 1 PCL.

2001 Mr. Brian Wilkinson with TNRCC requested that samples be collected to verify the subject site had been cleaned to acceptable levels and that groundwater was not impacted.

1990 Arsenic impacted soil was removed from the site and placed into an on-site pit where it was mixed with lime to render it insoluble in water as calcium carbonate.

1960 through the mid 1980's the site was used to tan leather. Arsenic was used in the tanning process.

Table of Contents

1	Section 1 On-Site Property Information
2	Section 2 Affected Property
3	Section 3 Receptor Surveys
4	Section 4 Exposure Pathways and COC Information
5	Section 5 Soil Assessment
6	Section 6 Groundwater Assessment
7	Appendices
8	
9	
10	

1

SECTION 1 ON-SITE PROPERTY INFORMATION

Worksheet 1.0 Environmental Setting

The site is located at 400 North Richey Street. in Pasadena, Texas. It is rectangular in shape and consist of 12.2 acres. The site slopes down from an elevation of 27 feet to 11 – 13 feet along it's east and northeast boundaries.

Vince's Bayou and Gulf Coast Waste Disposal are to the north. Railroad tracks run along the south boundary and Pasadena Paper is to the east. Vacant land, Pipelines and Powerlines are to the west.

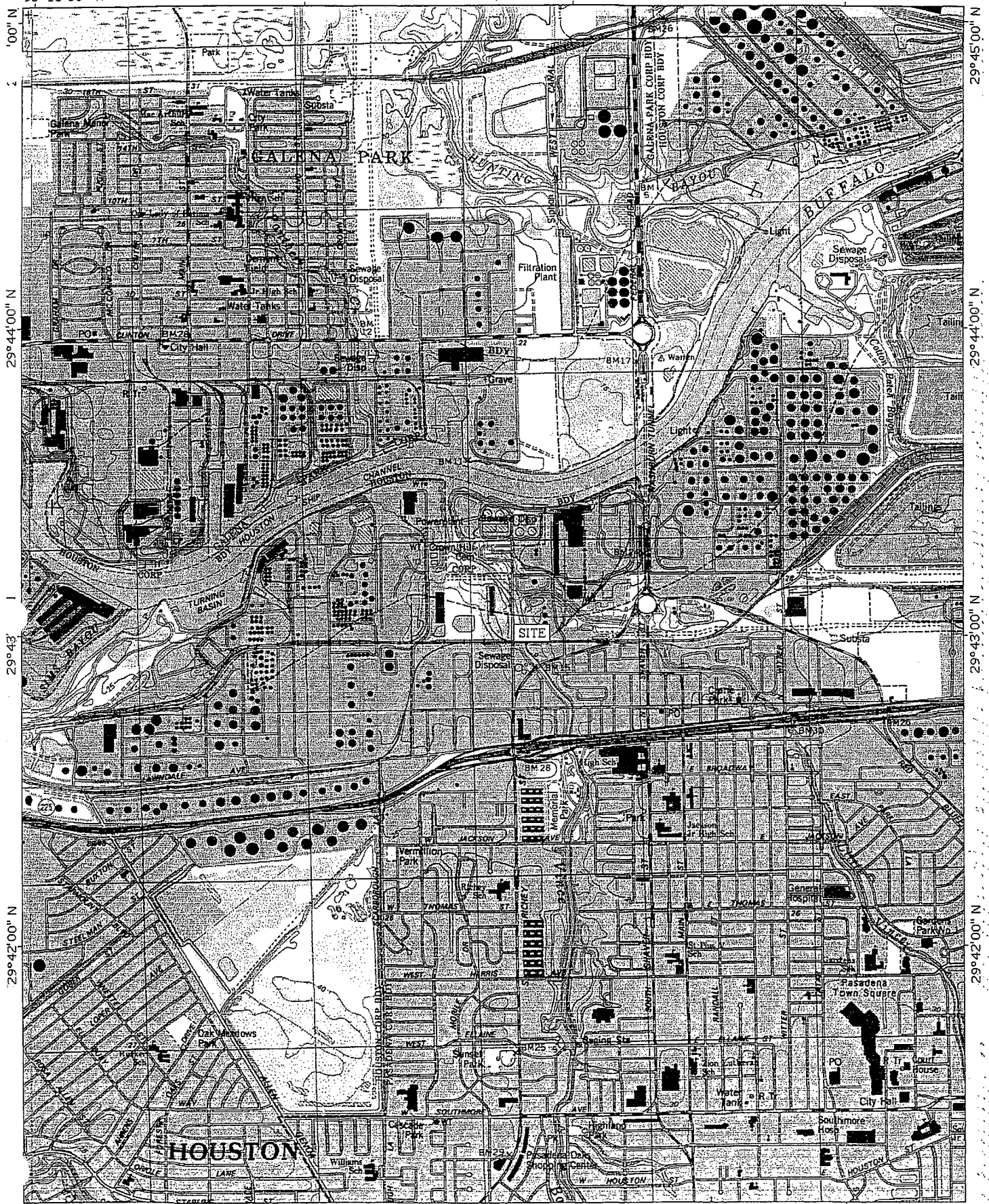
The three hydrogeologic units underlying Harris County are the Evangeline, Chicot and Jasper aquifers. In general, the groundwater gradient is to the southeast for these major aquifers. The Evangeline aquifer is the major water supply for the [portion of Harris Country containing the subject property. It lies 100 feet below mean sea level in extreme northwest Harris County, to 600 feet below mean sea level in southwest Harris County. The Chicot aquifer is typically encountered in southern Harris County only. The Jasper aquifer has not been developed significantly and is not a common source of drinking water in Harris County at this time.

In addition to the primary aquifers, groundwater often occurs in perched or isolated units. These are typically at depths less than 20 feet below grade in the Houston area. These units are not typically used for irrigation or drinking water but are the aquifers most likely to be impacted by leaking underground storage tanks and/or surface spills. Flow direction is variable, but typically follows the grade topography or toward the nearest down gradient water body. The drilling for this project located perched water from 9 to 16 feet.

The Pasadena Urban soils are developed over the Beaumont Formation, a deltaic-fluvio deposit of Pleistocene age. The Beaumont is a heterogeneous formation, consisting of clay mixed with interbedded sand and silt. In most areas, the undisturbed underlying soil exhibits low permeability.

The City of Pasadena provides drinking water to the site.

Attachment 1A Topographic Map



95°15'00" W

95°14'00" W

95°13'00" W

WGS84 95°12'00" W

TN 4°

0 1000 FEET 0 500 1000 METERS

Printed from TOPO! ©2001 National Geographic Holdings (www.topo.com)

WORKSHEET 1.1 ON-SITE PROPERTY USE

Regulatory ID Number: SWR52123

Current Use

Property is owned by Mr. Decker McKim and is 12.2 acres in size.

The property has two buildings currently standing. One is an office building with a vehicular scale near the front of the site. Two grassy areas are located in the front, one on each side of the entry road.

The second building is a rectangular warehouse located to the rear of the property. The area between the two buildings is concrete with a few areas of asphalt.

The property is currently not occupied.

Past Use

The site was undeveloped prairie before the current buildings were constructed in the late 1960's. The property was originally used for the tanning of leather and arsenic was used in the tanning process. That business went bankrupt in the mid 1980's and the buildings were unused, except for a brief period (approx. 6 months that ended May 2002) when they were used for storage by a church and a storage company.

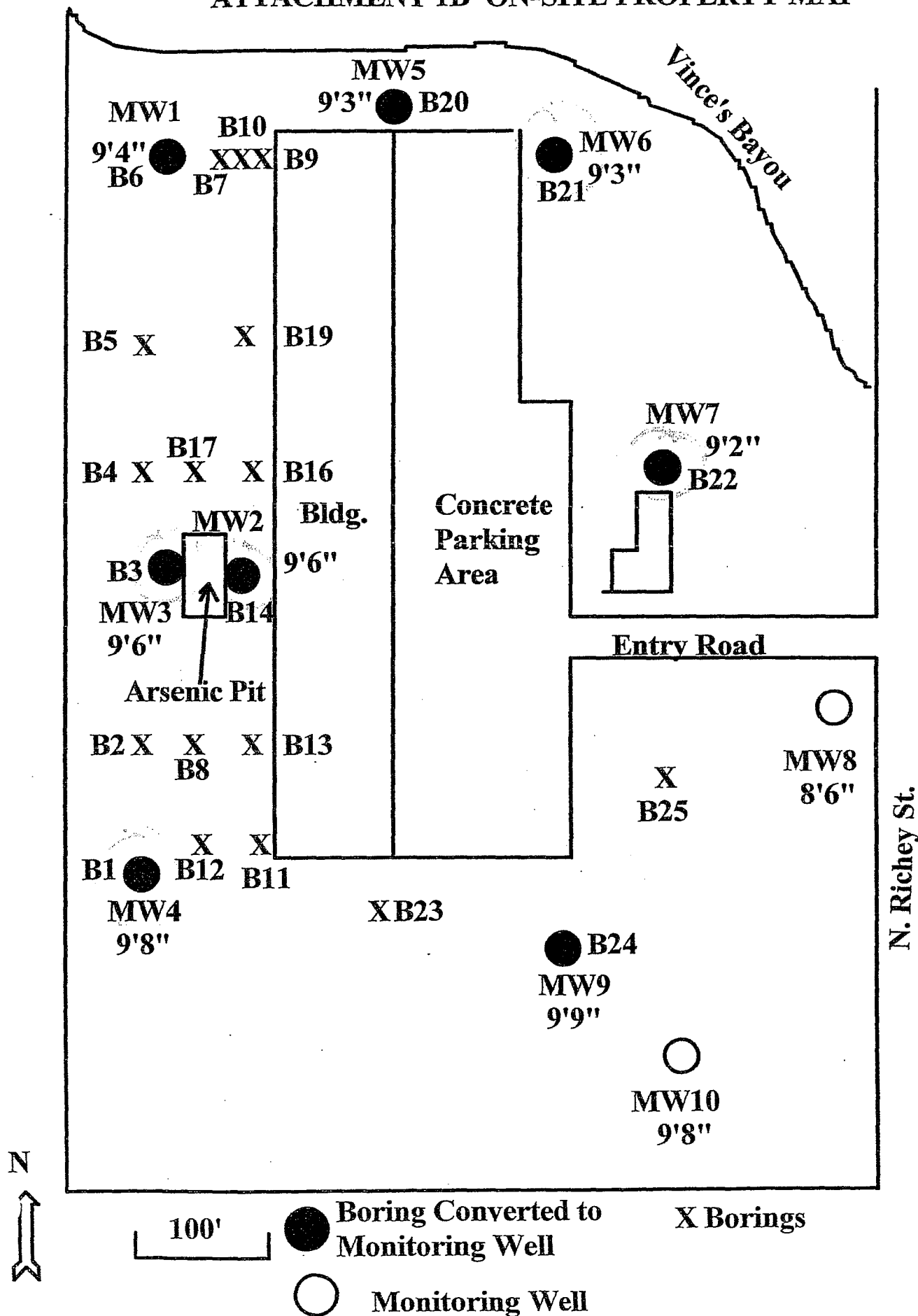
The property has been used for commercial/industrial purposes and is located within a commercial/industrial area of Pasadena.

Worksheet 1.2 List of Affected Properties

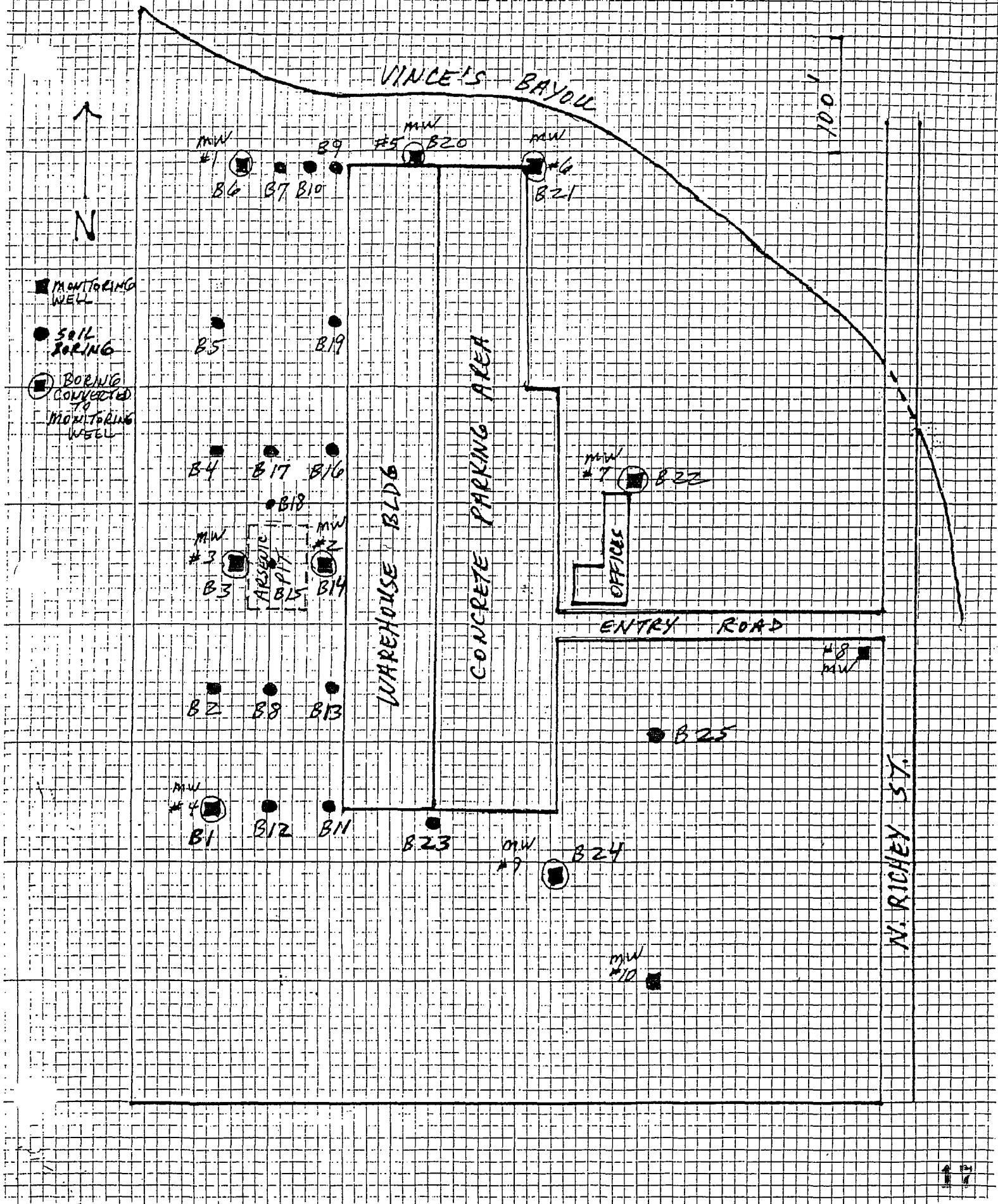
The subject site is the only affected property and it has been cleaned to meet TNRCC Tier 1 PCL for arsenic.

Attachment 1B On-Site Property Map

ATTACHMENT 1B ON-SITE PROPERTY MAP



ATTACHMENT 1 B ON-SITE PROPERTY MAP



SECTION 2

AFFECTED PROPERTY

Worksheet 2.0 Affected Property

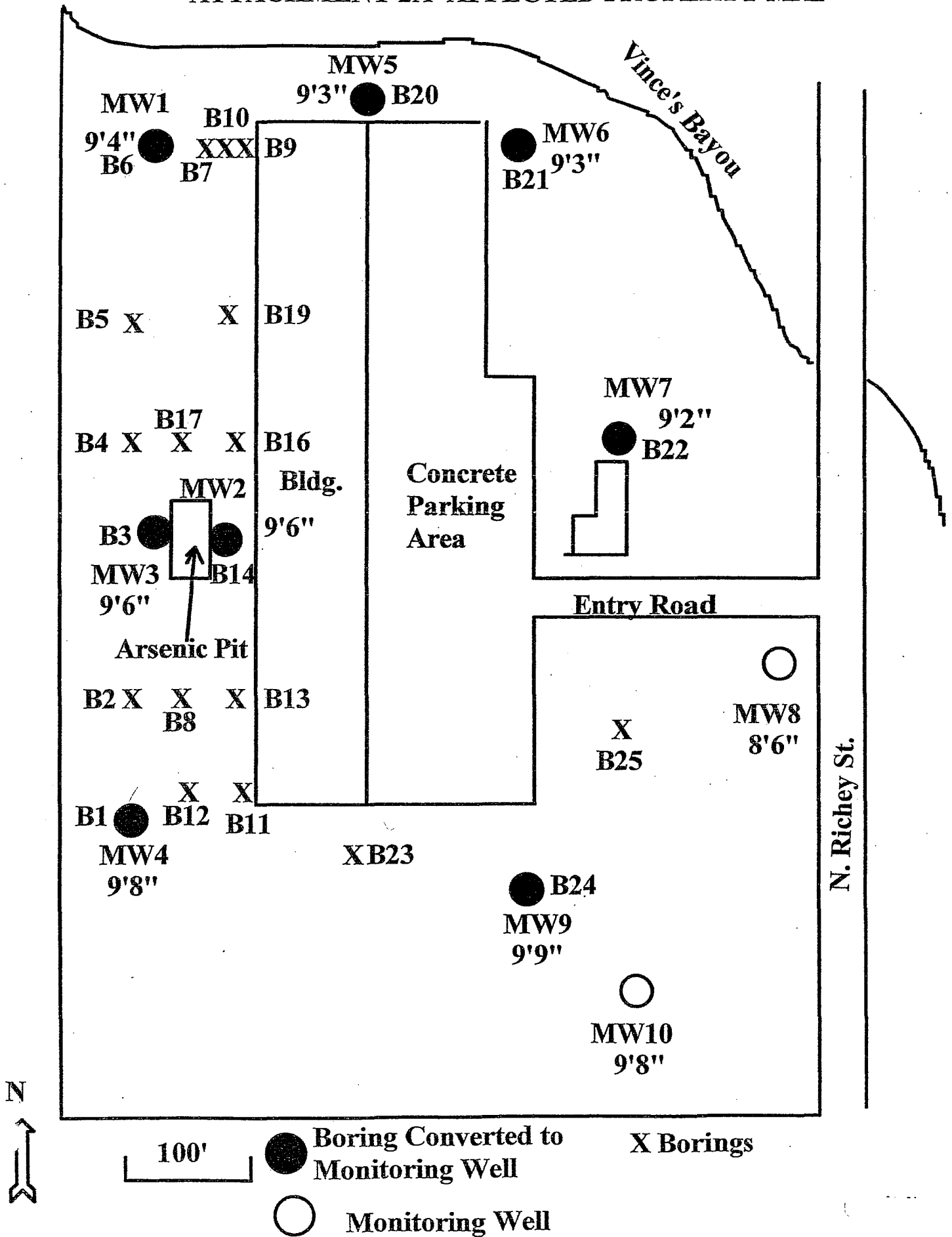
The subject property contained a leather tanning facility until the mid 1980's. The facility went bankrupt and the property owner had to clean up arsenic contaminated soil. The cleanup was performed under TNRCC guidance and was completed ten years ago and the property was deed recorded.

All contaminated soil was placed into an on-site pit and mixed with lime to render it insoluble in water as calcium arsenate.

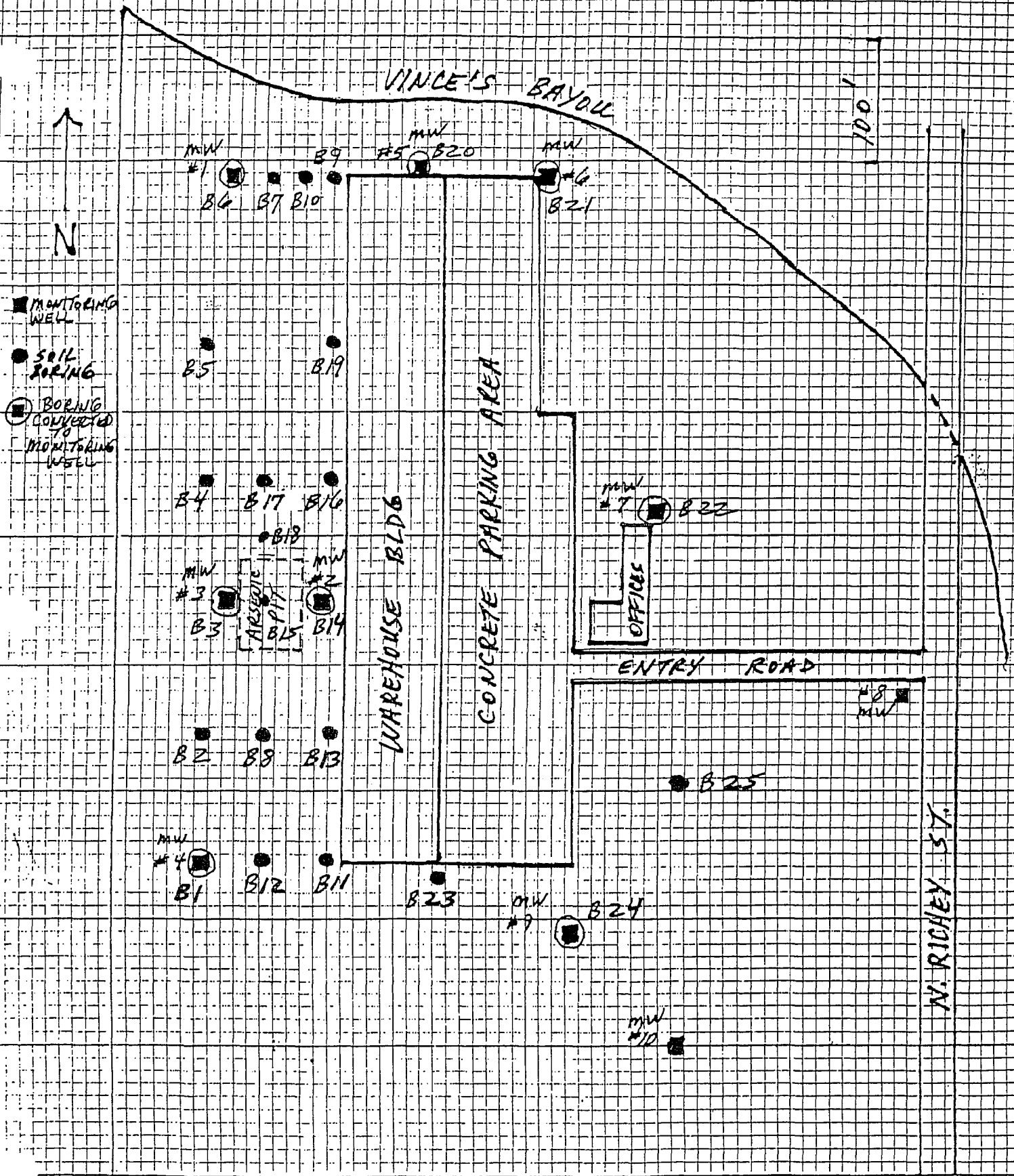
This soil and groundwater assessment was conducted at the request of Mr. Brian Wilkinson with TNRCC to document that the site was within acceptable TNRCC Tier 1 PCL levels.

Attachment 2A Affected Property Map

ATTACHMENT 2A AFFECTED PROPERTY MAP



ATTACHMENT 2A AFFECTED PROPERTY MAP



Worksheet 2.1 Geology/Hydrology

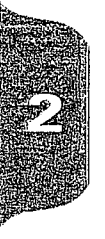
The three hydrogeologic units underlying Harris County are the Evangeline, Chicot and Jasper aquifers. In general, the groundwater gradient is to the southeast for these major aquifers. The Evangeline aquifer is the major water supply for the [portion of Harris Country containing the subject property. It lies 100 feet below mean sea level in extreme northwest Harris County, to 600 feet below mean sea level in southwest Harris County. The Chicot aquifer is typically encountered in southern Harris County only. The Jasper aquifer has not been developed significantly and is not a common source of drinking water in Harris County at this time.

In addition to the primary aquifers, groundwater often occurs in perched or isolated units. These are typically at depths less than 20 feet below grade in the Houston area. These units are not typically used for irrigation or drinking water but are the aquifers most likely to be impacted by leaking, underground storage tanks and/or surface spills. Flow direction is variable, but typically follows the grade topography or toward the nearest down gradient water body. The drilling for this project located perched water from 9 to 16 feet.

The Pasadena Urban soils are developed over the Beaumont Formation, a deltaic-fluvio deposit of Pleistocene age. The Beaumont is a heterogeneous formation, consisting of clay mixed with interbedded sand and silt. In most areas, the undisturbed underlying soil exhibits low permeability.

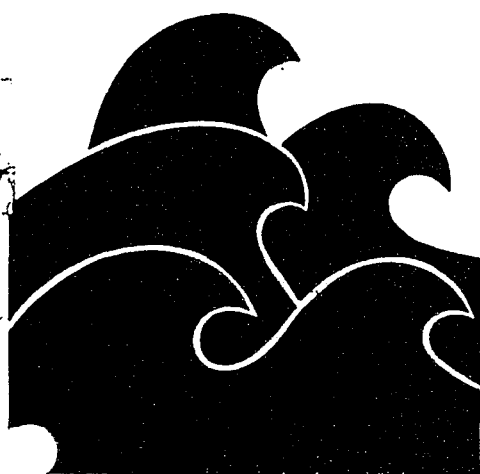
The groundwater at the subject site is Class I.

Attachment 2B Geologic Map



Report 236

*STRATIGRAPHIC AND HYDROGEOLOGIC
FRAMEWORK OF PART OF THE
COASTAL PLAIN OF TEXAS*



TEXAS DEPARTMENT OF WATER RESOURCES

July 1979

EXPLANATION



OUTCROP OF CATAHOULA
TUFF OR SANDSTONE

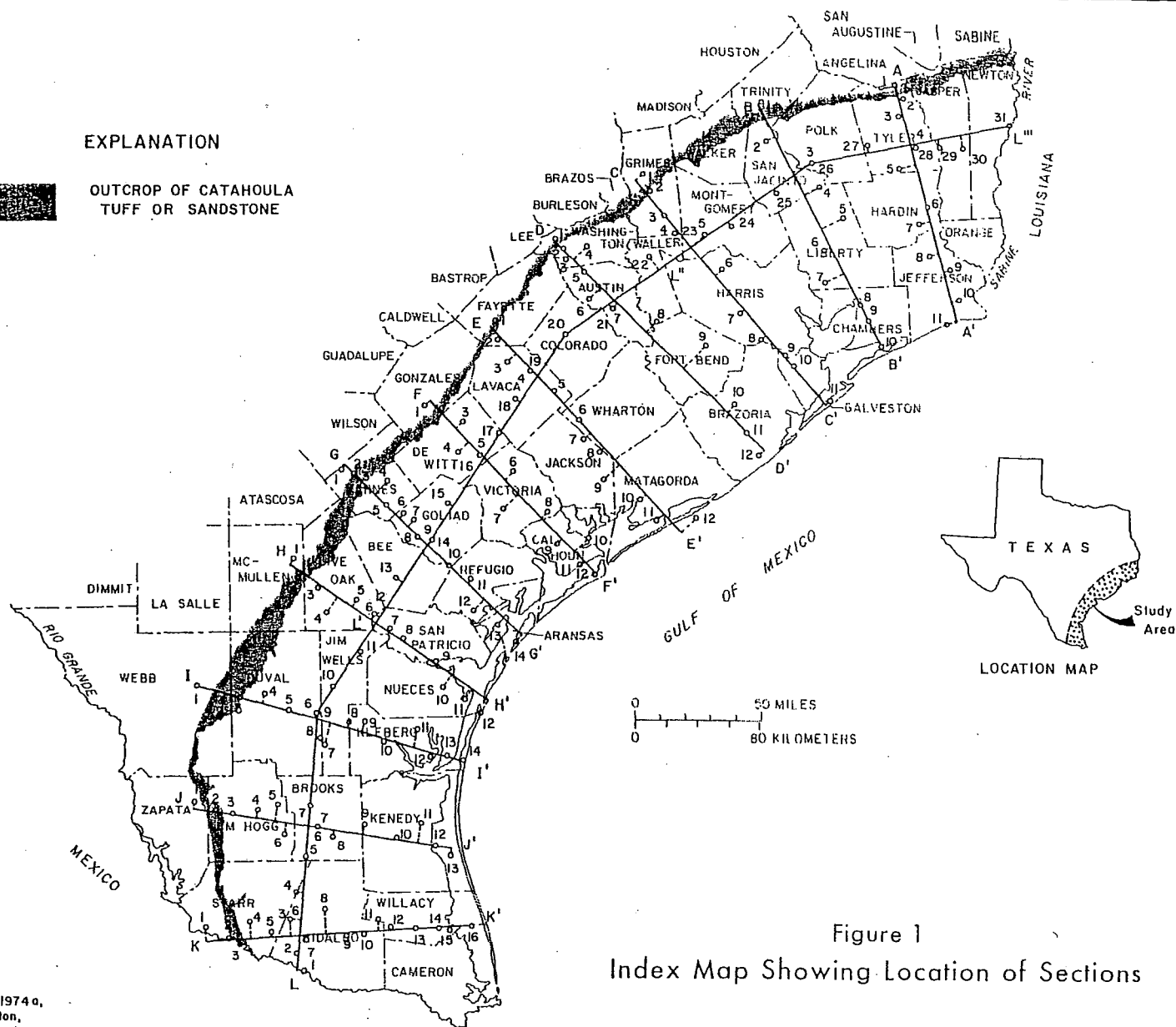
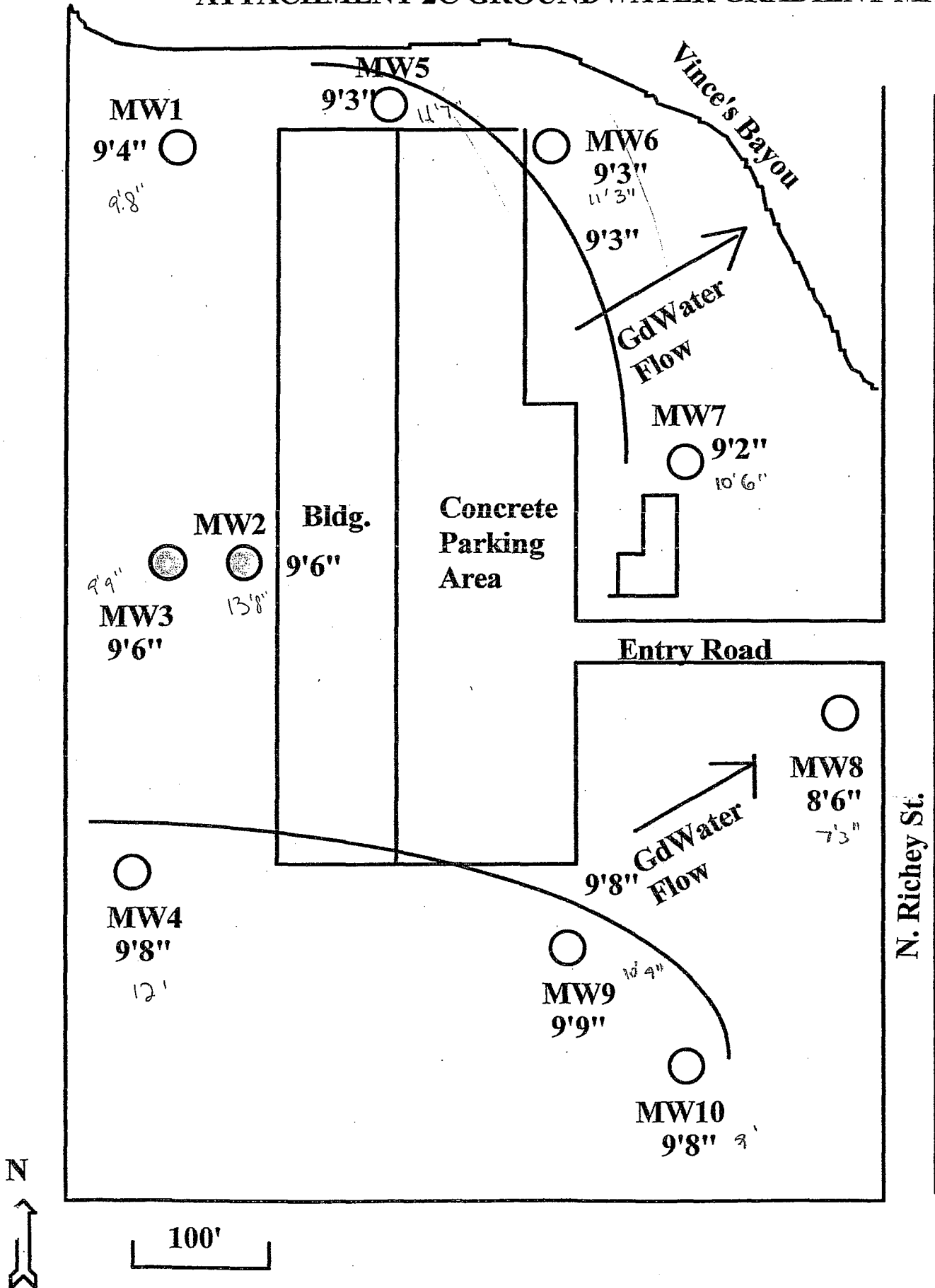


Figure 1
Index Map Showing Location of Sections

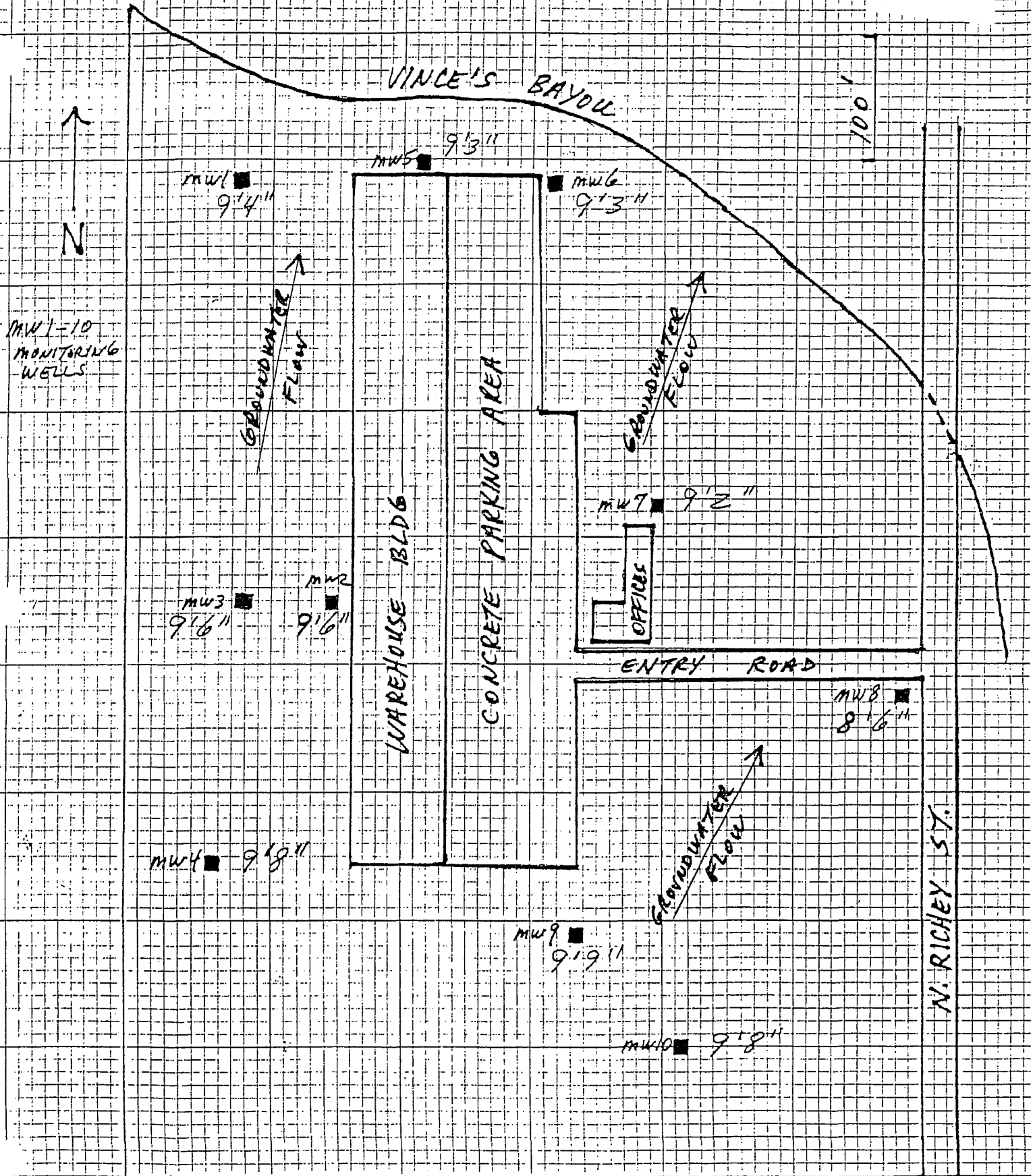
Geology from Barnes (1968a,b; 1974a,
b; 1975) and modified from Darton,
Stephenson, and Gardner (1937) and
from Barnes (1976a,b,c)

Attachment 2C Groundwater Gradient Map

ATTACHMENT 2C GROUNDWATER GRADIENT MAP



ATTACHMENT 2 C-GRA WATER GRADIENT MAP
GROUNDWATER ELEVATIONS AMSL



Attachment 2D Groundwater Measurements Table

<u>Monitoring Well</u>	<u>Well Depth</u>	<u>Casing Elevation</u>	<u>Depth To Groundwater</u>	<u>Well Screen Interval</u>
1	25'	3'	9'8"	15-25'
2	25'	3'	13'8"	15-25'
3	25'	2'	9'9"	15-25'
4	25'	2'6"	12'	15-25'
5	20'	2'9"	11'7"	10-20'
6	20'	3'2"	11'3"	10-20'
7	25'	3'	10'6"	15-25'
8	20'	3'3"	7'3"	10-20'
9	20'	2'7"	10'4"	10-20;
10	20'	2'8"	9'	10-20'

tides effects?

6.8
10.8
7.9
9.6
8.10
8.1
7.6
4
7.7
6.4

2.5

**Attachment 2E Boring Logs and Monitor Well Completion
Details**

Send original copy, along with the original copies of your State Well Reports, by certified mail to:

STATE WELL REPORT SUBMISSION FORM

TDLR
P.O. Box 12157
Austin, TX 78711

[illegible]

STANLEY WELLS

54380M

4/08/02

LICENSED DRILLER / PUMP INSTALLER
(Please Type or Print)

LICENSE NUMBER

DATE _____

ATTENTION OWNER: Confidentiality
Privilege Notice on on reverse side
of Well Owner's copy (pink)

State of Texas WELL REPORT

Texas Water Well Drillers Advisory Council
MC 177
P.O. Box 13087
Austin, TX 78711-3087
512-239-0530

1) OWNER T N R C C ADDRESS 400 N. Richey Pasadena, TX 77068
(Name) (Street or RFD) (City) (State) (Zip)

2) ADDRESS OF WELL: LAT: 29° 43.09' N
County Harris Same As Above LON: 95° 13.30' W
(Street, RFD or other) (City) (State) (Zip)

3) TYPE OF WORK (Check): ☒ New Well ☐ Deepening
☐ Reconditioning ☐ Plugging
4) PROPOSED USE (Check): ☒ Monitor ☐ Environmental Soil Boring ☐ Domestic
☐ Industrial ☐ Irrigation ☐ Injection ☐ Public Supply ☐ De-watering ☐ Testwell
If Public Supply well, were plans submitted to the TNRCC? ☐ Yes ☐ No
5) I-225

6) WELL LOG: DIAMETER OF HOLE
Date Drilling: 03/26/2002
Started 03/26/2002
Completed 19
Diameter of Hole:
Dia. (in.) From (ft.) To (ft.)
8 Surface 25
7) DRILLING METHOD (Check): ☐ Driven
☐ Air Rotary ☐ Mud Rotary ☐ Bored
☐ Air Hammer ☐ Cable Tool ☐ Jetted
☒ Other HSA

From (ft.) To (ft.) Description and color of formation material
Monitor Well #2
0 - 4 Top Soil
4 - 8 Gray Sand
8 - 12 Red Clay
12 - 25 Brown Sand
8) Borehole Completion (Check): ☐ Open Hole ☐ Straight Wall
☐ Underreamed ☒ Gravel Packed ☐ Other
If Gravel Packed give interval ... from 25 ft. to 13 ft.

CASING, BLANK PIPE, AND WELL SCREEN DATA:
Dia. (in.) New or Used Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial Setting (ft.) Gage Casting Screen
From To
2 N Slotted PVC 25 15 0.010
2 N PVC Riser 15 10 SCH40

9) CEMENTING DATA [Rule 338.44(1)]
Cemented from 0 ft. to 2 ft. No. of sacks used 2
_____ ft. to _____ ft. No. of sacks used _____
Method used Tremie
Cemented by SW
Distance to septic system field lines or other concentrated contamination _____ ft.
Method of verification of above distance N/A

10) SURFACE COMPLETION
☒ Specified Surface Slab Installed [Rule 338.44(2)(A)]
☐ Specified Steel Sleeve Installed [Rule 338.44(3)(A)]
☐ Pitless Adapter Used [Rule 338.44(3)(b)]
☐ Approved Alternative Procedure Used [Rule 338.71]

11) WATER LEVEL:
Static level 4 ft. below land surface Date 3/26/02
Artesian flow _____ gpm. Date _____
12) PACKERS: N/A Type _____ Depth _____

13) TYPE PUMP: N/A
☐ Turbine ☐ Jet ☐ Submersible ☐ Cylinder
☐ Other _____
Depth to pump bowls, cylinder, jet, etc., _____ ft.
14) WELL TESTS: N/A
Type test: ☐ Pump ☐ Bailer ☐ Jetted ☐ Estimated
Yield: _____ gpm with _____ ft. drawdown after _____ hrs.
15) WATER QUALITY:
Did you knowingly penetrate any strata which contained undesirable constituents?
☐ Yes ☒ No If yes, submit "REPORT OF UNDESIRABLE WATER"
Type of water? _____ Depth of strata _____
Was a chemical analysis made? ☐ Yes ☒ No

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief. I understand that failure to complete items 1 thru 15 will result in the log(s) being returned for completion and resubmittal.

COMPANY NAME Monitor Drilling Company WELL DRILLER'S LICENSE NO. 54380M
(Type or print)

ADDRESS 27083 Hanna Road Conroe, TX 77385
(Street or RFD) (City) (State) (Zip)

(Signed) [Signature] (Signed) [Signature]
(Licensed Well Driller) (Registered Driller Trainee)

Please attach electric log, chemical analysis, and other pertinent information, if available.

ATTENTION OWNER: Confidentiality
Privilege Notice on on reverse side
of Well Owner's copy (pink)

State of Texas WELL REPORT

Texas Water Well Drillers Advisory Council
MC 177
P.O. Box 13087
Austin, TX 78711-3087
512-239-0530

1) OWNER <u>T N R C C</u> ADDRESS <u>400 N. Richey</u> <u>Pasadena, TX</u> <u>77068</u> (Name) (Street or RFD) (City) (State) (Zip)																																	
2) ADDRESS OF WELL: <u>Same As Above</u> LAT: <u>29° 43.09N</u> County <u>Harris</u> (Street, RFD or other) (City) (State) (Zip) LON: <u>95°</u> GRID # <u>13.31W</u>																																	
3) TYPE OF WORK (Check): <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Deepening <input type="checkbox"/> Reconditioning <input type="checkbox"/> Plugging	4) PROPOSED USE (Check): <input checked="" type="checkbox"/> Monitor <input type="checkbox"/> Environmental Soil Boring <input type="checkbox"/> Domestic <input type="checkbox"/> Industrial <input type="checkbox"/> Irrigation <input type="checkbox"/> Injection <input type="checkbox"/> Public Supply <input type="checkbox"/> De-watering <input type="checkbox"/> Testwell If Public Supply well, were plans submitted to the TNRCC? <input type="checkbox"/> Yes <input type="checkbox"/> No																																
6) WELL LOG: Date Drilling: <u>3/26/2002</u> Started <u>3/26/2002</u> Completed <u> </u> 19 <u> </u>	5) <u>1225</u> <u>Richey</u> <u>N</u>																																
DIAMETER OF HOLE <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Dia. (in.)</th> <th>From (ft.)</th> <th>To (ft.)</th> </tr> <tr> <td>8</td> <td>Surface</td> <td>25</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>		Dia. (in.)	From (ft.)	To (ft.)	8	Surface	25																										
Dia. (in.)	From (ft.)	To (ft.)																															
8	Surface	25																															
7) DRILLING METHOD (Check): <input type="checkbox"/> Driven <input type="checkbox"/> Air Rotary <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Bored <input type="checkbox"/> Air Hammer <input type="checkbox"/> Cable Tool <input type="checkbox"/> Jetted <input checked="" type="checkbox"/> Other <u>HSA</u>																																	
8) Borehole Completion (Check): <input type="checkbox"/> Open Hole <input type="checkbox"/> Straight Wall <input type="checkbox"/> Underreamed <input checked="" type="checkbox"/> Gravel Packed <input type="checkbox"/> Other <u> </u> If Gravel Packed give interval ... from <u>25</u> ft. to <u>13</u> ft.																																	
CASING, BLANK PIPE, AND WELL SCREEN DATA:																																	
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th rowspan="2">Dia. (in.)</th> <th rowspan="2">New or Used</th> <th rowspan="2">Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial</th> <th colspan="2">Setting (ft.)</th> <th rowspan="2">Gage Casting Screen</th> </tr> <tr> <th>From</th> <th>To</th> </tr> <tr> <td>2</td> <td>N</td> <td>Slotted PVC</td> <td>25</td> <td>15</td> <td>0.010</td> </tr> <tr> <td>2</td> <td>N</td> <td>PV Riser</td> <td>15</td> <td>10</td> <td>Sch40</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>		Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial	Setting (ft.)		Gage Casting Screen	From	To	2	N	Slotted PVC	25	15	0.010	2	N	PV Riser	15	10	Sch40												
Dia. (in.)	New or Used				Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial	Setting (ft.)		Gage Casting Screen																									
		From	To																														
2	N	Slotted PVC	25	15	0.010																												
2	N	PV Riser	15	10	Sch40																												
9) CEMENTING DATA [Rule 338.44(1)] Cemented from <u>0</u> ft. to <u>2</u> ft. No. of sacks used <u>2</u> <u> </u> ft. to <u> </u> ft. No. of sacks used <u> </u> Method used <u>Tremie</u> Cemented by <u>SW</u> Distance to septic system field lines or other concentrated contamination <u> </u> ft. Method of verification of above distance <u>N/A</u>																																	
10) SURFACE COMPLETION <input checked="" type="checkbox"/> Specified Surface Slab Installed [Rule 338.44(2)(A)] <input type="checkbox"/> Specified Steel Sleeve Installed [Rule 338.44(3)(A)] <input type="checkbox"/> Pitless Adapter Used [Rule 338.44(3)(b)] <input type="checkbox"/> Approved Alternative Procedure Used [Rule 338.71]																																	
11) WATER LEVEL: Static level <u>4</u> ft. below land surface Date <u>3/26/02</u> Artesian flow <u> </u> gpm. Date <u> </u>																																	
12) PACKERS: <u>n/a</u> Type <u> </u> Depth <u> </u>																																	
13) TYPE PUMP: <u>N/A</u> <input type="checkbox"/> Turbine <input type="checkbox"/> Jet <input type="checkbox"/> Submersible <input type="checkbox"/> Cylinder <input type="checkbox"/> Other <u> </u> Depth to pump bowls, cylinder, jet, etc., <u> </u> ft.																																	
14) WELL TESTS: <u>N/A</u> Type test: <input type="checkbox"/> Pump <input type="checkbox"/> Bailer <input type="checkbox"/> Jetted <input type="checkbox"/> Estimated Yield: <u> </u> gpm with <u> </u> ft. drawdown after <u> </u> hrs.																																	
15) WATER QUALITY: Did you knowingly penetrate any strata which contained undesirable constituents? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, submit 'REPORT OF UNDESIRABLE WATER' Type of water? <u> </u> Depth of strata <u> </u> Was a chemical analysis made? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																	

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief. I understand that failure to complete items 1 thru 15 will result in the log(s) being returned for completion and resubmittal.

COMPANY NAME Monitor Drilling Company WELL DRILLER'S LICENSE NO. 54380M
(Type or print)
ADDRESS 27083 Hanna Rd. Conroe, TX 77385
(Street or RFD) (City) (State) (Zip)
(Signed) [Signature] (Signed) [Signature]
(Licensed Well Driller) (Registered Driller Trainee)

Please attach electric log, chemical analysis, and other pertinent information, if available.

ATTENTION OWNER: Confidentiality
Privilege Notice on on reverse side
of Well Owner's copy (pink)

State of Texas WELL REPORT

Texas Water Well Drillers Advisory Council
MC 177
P.O. Box 13087
Austin, TX 78711-3087
512-239-0530

1) OWNER <u>T N R C C</u> ADDRESS <u>400 N. Richey, Pasadena, TX 77068</u>																																	
(Name) (Street or RFD) (City) (State) (Zip)																																	
2) ADDRESS OF WELL: County <u>Harris</u> Same as Above LAT: <u>29° 43.06' N</u> LON: <u>95° 13.31' W</u>																																	
(Street, RFD or other) (City) (State) (Zip)																																	
3) TYPE OF WORK (Check): <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Deepening <input type="checkbox"/> Reconditioning <input type="checkbox"/> Plugging	4) PROPOSED USE (Check): <input checked="" type="checkbox"/> Monitor <input type="checkbox"/> Environmental Soil Boring <input type="checkbox"/> Domestic <input type="checkbox"/> Industrial <input type="checkbox"/> Irrigation <input type="checkbox"/> Injection <input type="checkbox"/> Public Supply <input type="checkbox"/> De-watering <input type="checkbox"/> Testwell If Public Supply well, were plans submitted to the TNRCC? <input type="checkbox"/> Yes <input type="checkbox"/> No																																
5) <u>2225</u>																																	
6) WELL LOG: Date Drilling: _____ Started <u>3/27/2002</u> Completed _____ 19____	7) DRILLING METHOD (Check): <input type="checkbox"/> Driven <input type="checkbox"/> Air Rotary <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Bored <input type="checkbox"/> Air Hammer <input type="checkbox"/> Cable Tool <input type="checkbox"/> Jetted <input checked="" type="checkbox"/> Other <u>HSA</u>																																
8) Borehole Completion (Check): <input type="checkbox"/> Open Hole <input type="checkbox"/> Straight Wall <input type="checkbox"/> Underreamed <input checked="" type="checkbox"/> Gravel Packed <input type="checkbox"/> Other _____ If Gravel Packed give interval ... from <u>25</u> ft. to <u>13</u> ft.																																	
CASING, BLANK PIPE, AND WELL SCREEN DATA:																																	
<table border="1" style="width:100%"><thead><tr><th rowspan="2">Dia. (in.)</th><th rowspan="2">New or Used</th><th rowspan="2">Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial</th><th colspan="2">Setting (ft.)</th><th rowspan="2">Gage Casting Screen</th></tr><tr><th>From</th><th>To</th></tr></thead><tbody><tr><td>2</td><td>N</td><td>Slotted PVC</td><td>25</td><td>15</td><td>0.010</td></tr><tr><td>2</td><td>N</td><td>PVC Riser</td><td>15</td><td>10</td><td>SCH40</td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr></tbody></table>		Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial	Setting (ft.)		Gage Casting Screen	From	To	2	N	Slotted PVC	25	15	0.010	2	N	PVC Riser	15	10	SCH40												
Dia. (in.)	New or Used				Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial	Setting (ft.)		Gage Casting Screen																									
		From	To																														
2	N	Slotted PVC	25	15	0.010																												
2	N	PVC Riser	15	10	SCH40																												
9) CEMENTING DATA [Rule 338.44(1)] Cemented from <u>0</u> ft. to <u>2</u> ft. No. of sacks used <u>2</u> _____ ft. to _____ ft. No. of sacks used _____ Method used <u>Tremie</u> Cemented by <u>SW</u> Distance to septic system field lines or other concentrated contamination _____ ft. Method of verification of above distance <u>N/A</u>																																	
10) SURFACE COMPLETION <input checked="" type="checkbox"/> Specified Surface Slab Installed [Rule 338.44(2)(A)] <input type="checkbox"/> Specified Steel Sleeve Installed [Rule 338.44(3)(A)] <input type="checkbox"/> Pitless Adapter Used [Rule 338.44(3)(b)] <input type="checkbox"/> Approved Alternative Procedure Used [Rule 338.71]																																	
11) WATER LEVEL: Static level <u>4</u> ft. below land surface Date <u>03/27/02</u> Artesian flow _____ gpm. Date _____																																	
12) PACKERS: <u>N/A</u> Type _____ Depth _____																																	

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief. I understand that failure to complete items 1 thru 15 will result in the log(s) being returned for completion and resubmittal.

COMPANY NAME Monitor Drilling Company

WELL DRILLER'S LICENSE NO. 54380M

ADDRESS 27083 Hanna Road

Conroe, TX 77385

(Signed) [Signature]
(Licensed Well Driller)

(Signed) [Signature]
(Registered Driller Trainee)

Please attach electric log, chemical analysis, and other pertinent information, if available.

ATTENTION OWNER: Confidentiality
Privilege Notice on on reverse side
of Well Owner's copy (pink)

State of Texas WELL REPORT

Texas Water Well Drillers Advisory Council
MC 177
P.O. Box 13087
Austin, TX 78711-3087
512-239-0530

1) OWNER TNRCC ADDRESS 400 N. RICHEY, Pasadena, TX 77068
(Name) (Street or RFD) (City) (State) (Zip)

2) ADDRESS OF WELL: Same As Above LAT: 29° 43.15' N
County Harris (Street, RFD or other) (City) (State) (Zip) LON: 95° 13.29' W
GRID #

3) TYPE OF WORK (Check):
☒ New Well ☐ Deepening
☐ Reconditioning ☐ Plugging

4) PROPOSED USE (Check): ☒ Monitor ☐ Environmental Soil Boring ☐ Domestic
☐ Industrial ☐ Irrigation ☐ Injection ☐ Public Supply ☐ De-watering ☐ Testwell
If Public Supply well, were plans submitted to the TNRCC? ☐ Yes ☐ No

5) *
I225

6) WELL LOG:
Date Drilling:
Started 3/27/2002
Completed _____ 19__

DIAMETER OF HOLE		
Dia. (in.)	From (ft.)	To (ft.)
8	Surface	25

7) DRILLING METHOD (Check): ☐ Driven
☐ Air Rotary ☐ Mud Rotary ☐ Bored
☐ Air Hammer ☐ Cable Tool ☐ Jetted
X: Other HSA

Richey
N

From (ft.) To (ft.) Description and color of formation material

Monitor Well #5
-0 - 4 Top Soil
4 - 8 Gray Sand
8 - 12 Red clay
12 - 20 Brown Sand

8) Borehole Completion (Check): ☐ Open Hole ☐ Straight Wall
☐ Underreamed ☒ Gravel Packed ☐ Other _____
If Gravel Packed give interval ... from 25 ft. to 13 ft.

CASING, BLANK PIPE, AND WELL SCREEN DATA:

Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial	Setting (ft.)		Gage Casting Screen
			From	To	
2	N	Slotted PVC	25	15	0.010
2	N	PVC Riser	15	0	SCH40

9) CEMENTING DATA [Rule 338.44(1)]
Cemented from 0 ft. to 2 ft. No. of sacks used 2
_____ ft. to _____ ft. No. of sacks used _____
Method used Tremie
Cemented by SW
Distance to septic system field lines or other concentrated contamination _____ ft.
Method of verification of above distance N/A

10) SURFACE COMPLETION

☒ Specified Surface Slab Installed [Rule 338.44(2)(A)]
☐ Specified Steel Sleeve Installed [Rule 338.44(3)(A)]
☐ Pitless Adapter Used [Rule 338.44(3)(b)]
☐ Approved Alternative Procedure Used [Rule 338.71]

11) WATER LEVEL:

Static level 4 ft. below land surface Date 3/27/02
Artesian flow _____ gpm. Date _____

12) PACKERS: N/A Type _____ Depth _____

13) TYPE PUMP: N/A
☐ Turbine ☐ Jet ☐ Submersible ☐ Cylinder
☐ Other _____
Depth to pump bowls, cylinder, jet, etc., _____ ft.

14) WELL TESTS: N/A
Type test: ☐ Pump ☐ Bailor ☐ Jetted ☐ Estimated
Yield: _____ gpm with _____ ft. drawdown after _____ hrs.

15) WATER QUALITY:
Did you knowingly penetrate any strata which contained undesirable constituents?
☐ Yes ☒ No If yes, submit "REPORT OF UNDESIRABLE WATER"
Type of water? _____ Depth of strata _____
Was a chemical analysis made? ☐ Yes ☒ No

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief. I understand that failure to complete items 1 thru 15 will result in the log(s) being returned for completion and resubmittal.

COMPANY NAME Monitor Drilling Company WELL DRILLER'S LICENSE NO. 54380M
(Type or print)

ADDRESS 27083 Hanna Road Conroe, TX 77385
(Street or RFD) (City) (State) (Zip)

(Signed) [Signature]
(Licensed Well Driller)

(Signed) [Signature]
(Registered Driller Trainee)

Please attach electric log, chemical analysis, and other pertinent information, if available.

TNRCC-0199 (Rev. 05-21-96)

ATTENTION OWNER: Confidentiality
Privilege Notice on on reverse side
of Well Owner's copy (pink)

State of Texas WELL REPORT

Texas Water Well Drillers Advisory Council
MC 177
P.O. Box 13087
Austin, TX 78711-3087
512-239-0530

1) OWNER <u>T N R C C</u> (Name)		ADDRESS <u>400 N. RICHEY</u> (Street or RFD)		<u>PASADENA, TX 77068</u> (City) (State) (Zip)																																																															
2) ADDRESS OF WELL: County <u>HARRIS</u>		SAME AS ABOVE (Street, RFD or other)		LAT: <u>29° 43.10' N</u> LON: <u>95° 13.25' W</u> (City) (State) (Zip)																																																															
3) TYPE OF WORK (Check): <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Deepening <input type="checkbox"/> Reconditioning <input type="checkbox"/> Plugging		4) PROPOSED USE (Check): <input checked="" type="checkbox"/> Monitor <input type="checkbox"/> Environmental Soil Boring <input type="checkbox"/> Domestic <input type="checkbox"/> Industrial <input type="checkbox"/> Irrigation <input type="checkbox"/> Injection <input type="checkbox"/> Public Supply <input type="checkbox"/> De-watering <input type="checkbox"/> Testwell If Public Supply well, were plans submitted to the TNRC? <input type="checkbox"/> Yes <input type="checkbox"/> No		5) <u>I225</u>																																																															
6) WELL LOG: Date Drilling: Started <u>3/28/2002</u> Completed <u>19</u>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="3">DIAMETER OF HOLE</th> </tr> <tr> <th>Dia. (in.)</th> <th>From (ft.)</th> <th>To (ft.)</th> </tr> <tr> <td>8</td> <td>Surface</td> <td>20</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>		DIAMETER OF HOLE			Dia. (in.)	From (ft.)	To (ft.)	8	Surface	20							<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">7) DRILLING METHOD (Check): <input type="checkbox"/> Driven <input type="checkbox"/> Air Rotary <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Bored <input type="checkbox"/> Air Hammer <input type="checkbox"/> Cable Tool <input type="checkbox"/> Jetted <input checked="" type="checkbox"/> Other <u>HSA</u></td> <td rowspan="2" style="text-align: center; vertical-align: middle; font-size: 2em;">Richey N</td> </tr> <tr> <td colspan="2">8) Borehole Completion (Check): <input type="checkbox"/> Open Hole <input type="checkbox"/> Straight Wall <input type="checkbox"/> Underreamed <input checked="" type="checkbox"/> Gravel Packed <input type="checkbox"/> Other _____ If Gravel Packed give interval ... from <u>20</u> ft. to <u>8</u> ft.</td> </tr> </table>		7) DRILLING METHOD (Check): <input type="checkbox"/> Driven <input type="checkbox"/> Air Rotary <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Bored <input type="checkbox"/> Air Hammer <input type="checkbox"/> Cable Tool <input type="checkbox"/> Jetted <input checked="" type="checkbox"/> Other <u>HSA</u>		Richey N	8) Borehole Completion (Check): <input type="checkbox"/> Open Hole <input type="checkbox"/> Straight Wall <input type="checkbox"/> Underreamed <input checked="" type="checkbox"/> Gravel Packed <input type="checkbox"/> Other _____ If Gravel Packed give interval ... from <u>20</u> ft. to <u>8</u> ft.																																											
DIAMETER OF HOLE																																																																			
Dia. (in.)	From (ft.)	To (ft.)																																																																	
8	Surface	20																																																																	
7) DRILLING METHOD (Check): <input type="checkbox"/> Driven <input type="checkbox"/> Air Rotary <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Bored <input type="checkbox"/> Air Hammer <input type="checkbox"/> Cable Tool <input type="checkbox"/> Jetted <input checked="" type="checkbox"/> Other <u>HSA</u>		Richey N																																																																	
8) Borehole Completion (Check): <input type="checkbox"/> Open Hole <input type="checkbox"/> Straight Wall <input type="checkbox"/> Underreamed <input checked="" type="checkbox"/> Gravel Packed <input type="checkbox"/> Other _____ If Gravel Packed give interval ... from <u>20</u> ft. to <u>8</u> ft.																																																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>From (ft.)</th> <th>To (ft.)</th> <th>Description and color of formation material</th> </tr> <tr> <td colspan="3">MONITOR WELL #7</td> </tr> <tr> <td>0</td> <td>4</td> <td>TOP SOIL</td> </tr> <tr> <td>4</td> <td>8</td> <td>GRAY SAND</td> </tr> <tr> <td>8</td> <td>12</td> <td>RED CLAY</td> </tr> <tr> <td>12</td> <td>25</td> <td>BROWN SAND</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>		From (ft.)	To (ft.)	Description and color of formation material	MONITOR WELL #7			0	4	TOP SOIL	4	8	GRAY SAND	8	12	RED CLAY	12	25	BROWN SAND							<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="6">CASING, BLANK PIPE, AND WELL SCREEN DATA:</th> </tr> <tr> <th rowspan="2">Dia. (in.)</th> <th rowspan="2">New or Used</th> <th rowspan="2">Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial</th> <th colspan="2">Setting (ft.)</th> <th rowspan="2">Gage Casting Screen</th> </tr> <tr> <th>From</th> <th>To</th> </tr> <tr> <td>2</td> <td>N</td> <td>SLOTTED PVC</td> <td>20</td> <td>10</td> <td>0.010</td> </tr> <tr> <td>2</td> <td>N</td> <td>PVC RISER</td> <td>10</td> <td>0</td> <td>SCH40</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>				CASING, BLANK PIPE, AND WELL SCREEN DATA:						Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial	Setting (ft.)		Gage Casting Screen	From	To	2	N	SLOTTED PVC	20	10	0.010	2	N	PVC RISER	10	0	SCH40												
From (ft.)	To (ft.)	Description and color of formation material																																																																	
MONITOR WELL #7																																																																			
0	4	TOP SOIL																																																																	
4	8	GRAY SAND																																																																	
8	12	RED CLAY																																																																	
12	25	BROWN SAND																																																																	
CASING, BLANK PIPE, AND WELL SCREEN DATA:																																																																			
Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial	Setting (ft.)		Gage Casting Screen																																																														
			From	To																																																															
2	N	SLOTTED PVC	20	10	0.010																																																														
2	N	PVC RISER	10	0	SCH40																																																														
13) TYPE PUMP: <u>N/A</u> <input type="checkbox"/> Turbine <input type="checkbox"/> Jet <input type="checkbox"/> Submersible <input type="checkbox"/> Cylinder <input type="checkbox"/> Other _____ Depth to pump bowls, cylinder, jet, etc., _____ ft.		9) CEMENTING DATA [Rule 338.44(1)] Cemented from <u>0</u> ft. to <u>2</u> ft. No. of sacks used <u>2</u> _____ ft. to _____ ft. No. of sacks used _____ Method used <u>TREMIE</u> Cemented by <u>SW</u> Distance to septic system field lines or other concentrated contamination _____ ft. Method of verification of above distance _____																																																																	
14) WELL TESTS: <u>N/A</u> Type test: <input type="checkbox"/> Pump <input type="checkbox"/> Bailer <input type="checkbox"/> Jetted <input type="checkbox"/> Estimated Yield: _____ gpm with _____ ft. drawdown after _____ hrs.		10) SURFACE COMPLETION <input checked="" type="checkbox"/> Specified Surface Slab Installed [Rule 338.44(2)(A)] <input type="checkbox"/> Specified Steel Sleeve Installed [Rule 338.44(3)(A)] <input type="checkbox"/> Pitless Adapter Used [Rule 338.44(3)(b)] <input type="checkbox"/> Approved Alternative Procedure Used [Rule 338.71]																																																																	
15) WATER QUALITY: Did you knowingly penetrate any strata which contained undesirable constituents? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, submit "REPORT OF UNDESIRABLE WATER" Type of water? _____ Depth of strata _____ Was a chemical analysis made? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		11) WATER LEVEL: Static level <u>4</u> ft. below land surface Date <u>3/28/02</u> Artesian flow _____ gpm. Date _____																																																																	
		12) PACKERS: <u>N/A</u> Type _____ Depth _____																																																																	

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief. I understand that failure to complete items 1 thru 15 will result in the log(s) being returned for completion and resubmittal.

COMPANY NAME MONITOR DRILLING COMPANY (Type or print) WELL DRILLER'S LICENSE NO. 54380M

ADDRESS 27083 HANNA ROAD (Street or RFD) CONROE, TX 77385 (City) (State) (Zip)

(Signed) [Signature] (Licensed Well Driller) (Signed) [Signature] (Registered Driller Trainee)

Please attach electric log, chemical analysis, and other pertinent information, if available.

ATTENTION OWNER: Confidentiality
Privilege Notice on on reverse side
of Well Owner's copy (pink)

State of Texas WELL REPORT

Texas Water Well Drillers Advisory Council
MC 177
P.O. Box 13087
Austin, TX 78711-3087
512-239-0530

1) OWNER <u>T N R C C</u> (Name)		ADDRESS <u>400 N. RICHEY</u> (Street or RFD)		<u>PASADENA, TX 77068</u> (City) (State) (Zip)																																	
2) ADDRESS OF WELL: County <u>HARRIS</u>		SAME AS ABOVE (Street, RFD or other)		LAT: <u>29° 43.07' N</u> LONG: <u>95° 13.23' W</u>																																	
3) TYPE OF WORK (Check): <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Deepening <input type="checkbox"/> Reconditioning <input type="checkbox"/> Plugging		4) PROPOSED USE (Check): <input checked="" type="checkbox"/> Monitor <input type="checkbox"/> Environmental Soil Boring <input type="checkbox"/> Domestic <input type="checkbox"/> Industrial <input type="checkbox"/> Irrigation <input type="checkbox"/> Injection <input type="checkbox"/> Public Supply <input type="checkbox"/> De-watering <input type="checkbox"/> Testwell If Public Supply well, were plans submitted to the TNRCC? <input type="checkbox"/> Yes <input type="checkbox"/> No		5) <u>I225</u>																																	
6) WELL LOG: Date Drilling: Started <u>3/28/2002</u> Completed <u>19</u>		DIAMETER OF HOLE <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Dia. (in.)</th> <th>From (ft.)</th> <th>To (ft.)</th> </tr> <tr> <td>8</td> <td>Surface</td> <td>20</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>		Dia. (in.)	From (ft.)	To (ft.)	8	Surface	20							7) DRILLING METHOD (Check): <input type="checkbox"/> Driven <input type="checkbox"/> Air Rotary <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Bored <input type="checkbox"/> Air Hammer <input type="checkbox"/> Cable Tool <input type="checkbox"/> Jetted <input checked="" type="checkbox"/> Other <u>HSA</u>																					
Dia. (in.)	From (ft.)	To (ft.)																																			
8	Surface	20																																			
From (ft.) To (ft.) Description and color of formation material		8) Borehole Completion (Check): <input type="checkbox"/> Open Hole <input type="checkbox"/> Straight Wall <input type="checkbox"/> Underreamed <input type="checkbox"/> Gravel Packed <input type="checkbox"/> Other _____ If Gravel Packed give interval ... from <u>20</u> ft. to <u>8</u> ft.																																			
MONITOR WELL #8		CASING, BLANK PIPE, AND WELL SCREEN DATA:																																			
0 - 4 TOP SOIL		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th rowspan="2">Dia. (in.)</th> <th rowspan="2">New or Used</th> <th rowspan="2">Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial</th> <th colspan="2">Setting (ft.)</th> <th rowspan="2">Gage Casting Screen</th> </tr> <tr> <th>From</th> <th>To</th> </tr> <tr> <td>2</td> <td>N</td> <td>SLOTTED PVC</td> <td>20</td> <td>10</td> <td>0.010</td> </tr> <tr> <td>2</td> <td>N</td> <td>PVC RISER</td> <td>10</td> <td>0</td> <td>SCH40</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>				Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial	Setting (ft.)		Gage Casting Screen	From	To	2	N	SLOTTED PVC	20	10	0.010	2	N	PVC RISER	10	0	SCH40												
Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial	Setting (ft.)		Gage Casting Screen																																
			From	To																																	
2	N	SLOTTED PVC	20	10	0.010																																
2	N	PVC RISER	10	0	SCH40																																
4 - 8 GRAY SAND		9) CEMENTING DATA [Rule 338.44(1)] Cemented from <u>0</u> ft. to <u>2</u> ft. No. of sacks used <u>2</u> _____ ft. to _____ ft. No. of sacks used _____ Method used <u>TREMIE</u> Cemented by <u>SW</u> Distance to septic system field lines or other concentrated contamination _____ ft. Method of verification of above distance _____																																			
8 - 12 RED CLAY		10) SURFACE COMPLETION <input checked="" type="checkbox"/> Specified Surface Slab Installed [Rule 338.44(2)(A)] <input type="checkbox"/> Specified Steel Sleeve Installed [Rule 338.44(3)(A)] <input type="checkbox"/> Pitless Adapter Used [Rule 338.44(3)(b)] <input type="checkbox"/> Approved Alternative Procedure Used [Rule 338.71]																																			
12 - 20 BROWN SAND		11) WATER LEVEL: Static level <u>4</u> ft. below land surface Date <u>3/28/02</u> Artesian flow _____ gpm. Date _____																																			
(Use reverse side of Well Owner's copy, if necessary)		12) PACKERS: <u>N/A</u> Type _____ Depth _____																																			
13) TYPE PUMP: <u>N/A</u> <input type="checkbox"/> Turbine <input type="checkbox"/> Jet <input type="checkbox"/> Submersible <input type="checkbox"/> Cylinder <input type="checkbox"/> Other _____ Depth to pump bowls, cylinder, jet, etc., _____ ft.																																					
14) WELL TESTS: <u>N/A</u> Type test: <input type="checkbox"/> Pump <input type="checkbox"/> Bailor <input type="checkbox"/> Jetted <input type="checkbox"/> Estimated Yield: _____ gpm with _____ ft. drawdown after _____ hrs.																																					
15) WATER QUALITY: Did you knowingly penetrate any strata which contained undesirable constituents? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, submit "REPORT OF UNDESIRABLE WATER" Type of water? _____ Depth of strata _____ Was a chemical analysis made? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																					

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief. I understand that failure to complete items 1 thru 15 will result in the log(s) being returned for completion and resubmittal.

COMPANY NAME MONITOR DRILLING COMPANY
(Type or print)

WELL DRILLER'S LICENSE NO. 54380M

RESS 27083 HANNA ROAD
(Street or RFD)

CONROE, TX 77385
(City) (State) (Zip)

(Signed) A. Wells
(Licensed Well Driller)

(Signed) Burden
(Registered Driller Trainee)

Please attach electric log, chemical analysis, and other pertinent information, if available.

ATTENTION OWNER: Confidentiality
Privilege Notice on on reverse side
of Well Owner's copy (pink)

State of Texas WELL REPORT

Texas Water Well Drillers Advisory Council
MC 177
P.O. Box 13087
Austin, TX 78711-3087
512-239-0530

1) OWNER <u>T N R C C</u> (Name)		ADDRESS <u>400 N. RICHEY</u> (Street or RFD)		PASADENA, TX 77068 (State) (Zip)																																	
2) ADDRESS OF WELL: County <u>HARRIS</u>		SAME AS ABOVE (Street, RFD or other)		LAT: <u>29° 43.03' N</u> (State) (Zip) LON: <u>95° 13.24' W</u>																																	
3) TYPE OF WORK (Check): <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Deepening <input type="checkbox"/> Reconditioning <input type="checkbox"/> Plugging		4) PROPOSED USE (Check): <input checked="" type="checkbox"/> Monitor <input type="checkbox"/> Environmental Soil Boring <input type="checkbox"/> Domestic <input type="checkbox"/> Industrial <input type="checkbox"/> Irrigation <input type="checkbox"/> Injection <input type="checkbox"/> Public Supply <input type="checkbox"/> De-watering <input type="checkbox"/> Testwell If Public Supply well, were plans submitted to the TNRCC? <input type="checkbox"/> Yes <input type="checkbox"/> No			5) <u>I225</u>																																
6) WELL LOG: Date Drilling: Started <u>3/28/2002</u> Completed _____ 19__		<table border="1" style="width:100%; border-collapse: collapse;"> <tr><th colspan="3">DIAMETER OF HOLE</th></tr> <tr> <th>Dia. (in.)</th><th>From (ft.)</th><th>To (ft.)</th></tr> <tr> <td>8</td><td>Surface</td><td>20</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>		DIAMETER OF HOLE			Dia. (in.)	From (ft.)	To (ft.)	8	Surface	20							7) DRILLING METHOD (Check): <input type="checkbox"/> Driven <input type="checkbox"/> Air Rotary <input type="checkbox"/> Mud Rotary <input type="checkbox"/> Bored <input type="checkbox"/> Air Hammer <input type="checkbox"/> Cable Tool <input type="checkbox"/> Jetted <input checked="" type="checkbox"/> Other <u>HSA</u>																		
DIAMETER OF HOLE																																					
Dia. (in.)	From (ft.)	To (ft.)																																			
8	Surface	20																																			
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>From (ft.)</th><th>To (ft.)</th><th>Description and color of formation material</th></tr> <tr><td colspan="3">MONITOR WELL #9</td></tr> <tr><td>0</td><td>- 4</td><td>TOP SOIL</td></tr> <tr><td>4</td><td>- 8</td><td>GRAY SAND</td></tr> <tr><td>8</td><td>- 12</td><td>RED CLAY</td></tr> <tr><td>12</td><td>- 20</td><td>BROWN SAND</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>		From (ft.)	To (ft.)	Description and color of formation material	MONITOR WELL #9			0	- 4	TOP SOIL	4	- 8	GRAY SAND	8	- 12	RED CLAY	12	- 20	BROWN SAND							8) Borehole Completion (Check): <input type="checkbox"/> Open Hole <input type="checkbox"/> Straight Wall <input type="checkbox"/> Underreamed <input checked="" type="checkbox"/> Gravel Packed <input type="checkbox"/> Other _____ If Gravel Packed give interval ... from <u>20</u> ft. to <u>8</u> ft.											
From (ft.)	To (ft.)	Description and color of formation material																																			
MONITOR WELL #9																																					
0	- 4	TOP SOIL																																			
4	- 8	GRAY SAND																																			
8	- 12	RED CLAY																																			
12	- 20	BROWN SAND																																			
		CASING, BLANK PIPE, AND WELL SCREEN DATA:																																			
		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th rowspan="2">Dia. (in.)</th><th rowspan="2">New or Used</th><th rowspan="2">Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., If commercial</th><th colspan="2">Setting (ft.)</th><th rowspan="2">Gage Casting Screen</th></tr> <tr> <th>From</th><th>To</th></tr> <tr><td>2</td><td>N</td><td>SLOTTED PVC</td><td>20</td><td>10</td><td>0.010</td></tr> <tr><td>2</td><td>N</td><td>PVC RISER</td><td>10</td><td>0</td><td>SCH40</td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table>				Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., If commercial	Setting (ft.)		Gage Casting Screen	From	To	2	N	SLOTTED PVC	20	10	0.010	2	N	PVC RISER	10	0	SCH40												
Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., If commercial	Setting (ft.)		Gage Casting Screen																																
			From	To																																	
2	N	SLOTTED PVC	20	10	0.010																																
2	N	PVC RISER	10	0	SCH40																																
		9) CEMENTING DATA [Rule 338.44(1)] Cemented from <u>0</u> ft. to <u>2</u> ft. No. of sacks used <u>2</u> _____ ft. to _____ ft. No. of sacks used _____ Method used <u>TREMIE</u> Cemented by <u>SW</u> Distance to septic system field lines or other concentrated contamination _____ ft. Method of verification of above distance _____																																			
13) TYPE PUMP: <u>N/A</u> <input type="checkbox"/> Turbine <input type="checkbox"/> Jet <input type="checkbox"/> Submersible <input type="checkbox"/> Cylinder <input type="checkbox"/> Other _____ Depth to pump bowls, cylinder, jet, etc., _____ ft.		10) SURFACE COMPLETION <input checked="" type="checkbox"/> Specified Surface Slab Installed [Rule 338.44(2)(A)] <input type="checkbox"/> Specified Steel Sleeve Installed [Rule 338.44(3)(A)] <input type="checkbox"/> Pitless Adapter Used [Rule 338.44(3)(b)] <input type="checkbox"/> Approved Alternative Procedure Used [Rule 338.71]																																			
14) WELL TESTS: <u>N/A</u> Type test: <input type="checkbox"/> Pump <input type="checkbox"/> Bailer <input type="checkbox"/> Jetted <input type="checkbox"/> Estimated Yield: _____ gpm with _____ ft. drawdown after _____ hrs.		11) WATER LEVEL: Static level <u>4</u> ft. below land surface Date <u>3/28/02</u> Artesian flow _____ gpm. Date _____																																			
15) WATER QUALITY: Did you knowingly penetrate any strata which contained undesirable constituents? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, submit "REPORT OF UNDESIRABLE WATER" Type of water? _____ Depth of strata _____ Was a chemical analysis made? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		12) PACKERS: <u>N/A</u> Type _____ Depth _____																																			

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief. I understand that failure to complete items 1 thru 15 will result in the log(s) being returned for completion and resubmittal.

COMPANY NAME MONITOR DRILLING COMPANY (Type or print) WELL DRILLER'S LICENSE NO. 54380M
ADDRESS 27083 HANNA ROAD (Street or RFD) CONROE, TX 77385 (City) (State) (Zip)
(Signed) [Signature] (Licensed Well Driller) (Signed) [Signature] (Registered Driller Trainee)

Please attach electric log, chemical analysis, and other pertinent information, if available.

ATTENTION OWNER: Confidentiality
Privilege Notice on on reverse side
of Well Owner's copy (pink)

State of Texas WELL REPORT

Texas Water Well Drillers Advisory Council
MC 177
P.O. Box 13087
Austin, TX 78711-3087
512-239-0530

1) OWNER T N R C C ADDRESS 400 N. RICHEY PASADENA, TX 77068
(Name) (Street or RFD) (City) (State) (Zip)
2) ADDRESS OF WELL: HARRIS SAME AS ABOVE LAT: 29° 43.05' N
County (Street, RFD or other) (City) (State) (Zip) LONG: 95° 13.26' W

3) TYPE OF WORK (Check):
☒ New Well ☐ Deepening
☐ Reconditioning ☐ Plugging

4) PROPOSED USE (Check): ☒ Monitor ☐ Environmental Soil Boring ☐ Domestic
☐ Industrial ☐ Irrigation ☐ Injection ☐ Public Supply ☐ De-watering ☐ Testwell
If Public Supply well, were plans submitted to the TNRCC? ☐ Yes ☐ No

5) I225

6) WELL LOG:
Date Drilling: _____
Started 3/28/2002
Completed _____ 19 _____

DIAMETER OF HOLE		
Dia. (in.)	From (ft.)	To (ft.)
8	Surface	20

7) DRILLING METHOD (Check): ☐ Driven
☐ Air Rotary ☐ Mud Rotary ☐ Bored
☐ Air Hammer ☐ Cable Tool ☐ Jetted
☒ Other HSA

Richey
N

From (ft.)	To (ft.)	Description and color of formation material
MONITOR WELL #10		
0	-	4 TOP SOIL
4	-	8 GRAY SAND
8	-	12 RED CLAY
12	-	20 BROWN SAND

8) Borehole Completion (Check): ☐ Open Hole ☐ Straight Wall
☐ Underreamed ☒ Gravel Packed ☐ Other _____
If Gravel Packed give interval ... from 20 ft. to 8 ft.

CASING, BLANK PIPE, AND WELL SCREEN DATA:

Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial	Setting (ft.)		Gage Casting Screen
			From	To	
2	N	SLOTTED PVC	20	10	0.010
2	N	PVC RISER	10	0	SCH40

13) TYPE PUMP: N/A
☐ Turbine ☐ Jet ☐ Submersible ☐ Cylinder
☐ Other _____
Depth to pump bowls, cylinder, jet, etc., _____ ft.

9) CEMENTING DATA [Rule 338.44(1)]
Cemented from 0 ft. to 2 ft. No. of sacks used 2
_____ ft. to _____ ft. No. of sacks used _____
Method used TREMIE
Cemented by SW
Distance to septic system field lines or other concentrated contamination _____ ft.
Method of verification of above distance n/a

10) SURFACE COMPLETION
☒ Specified Surface Slab Installed [Rule 338.44(2)(A)]
☐ Specified Steel Sleeve Installed [Rule 338.44(3)(A)]
☐ Pitless Adapter Used [Rule 338.44(3)(b)]
☐ Approved Alternative Procedure Used [Rule 338.71]

11) WATER LEVEL:
Static level 4 ft. below land surface Date 3/28/02
Artesian flow _____ gpm. Date _____

12) PACKERS: N/A Type _____ Depth _____

14) WELL TESTS: N/A
Type test: ☐ Pump ☐ Bailer ☐ Jetted ☐ Estimated
Yield: _____ gpm with _____ ft. drawdown after _____ hrs.

15) WATER QUALITY:
Did you knowingly penetrate any strata which contained undesirable constituents?
☐ Yes ☒ No If yes, submit "REPORT OF UNDESIRABLE WATER"
Type of water? _____ Depth of strata _____
Was a chemical analysis made? ☐ Yes ☒ No

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief. I understand that failure to complete items 1 thru 15 will result in the log(s) being returned for completion and resubmittal.

COMPANY NAME MONITOR DRILLING COMPANY
(Type or print)

WELL DRILLER'S LICENSE NO. 54380M

ADDRESS 27083 HANNA ROAD

CONROE, TX 77385

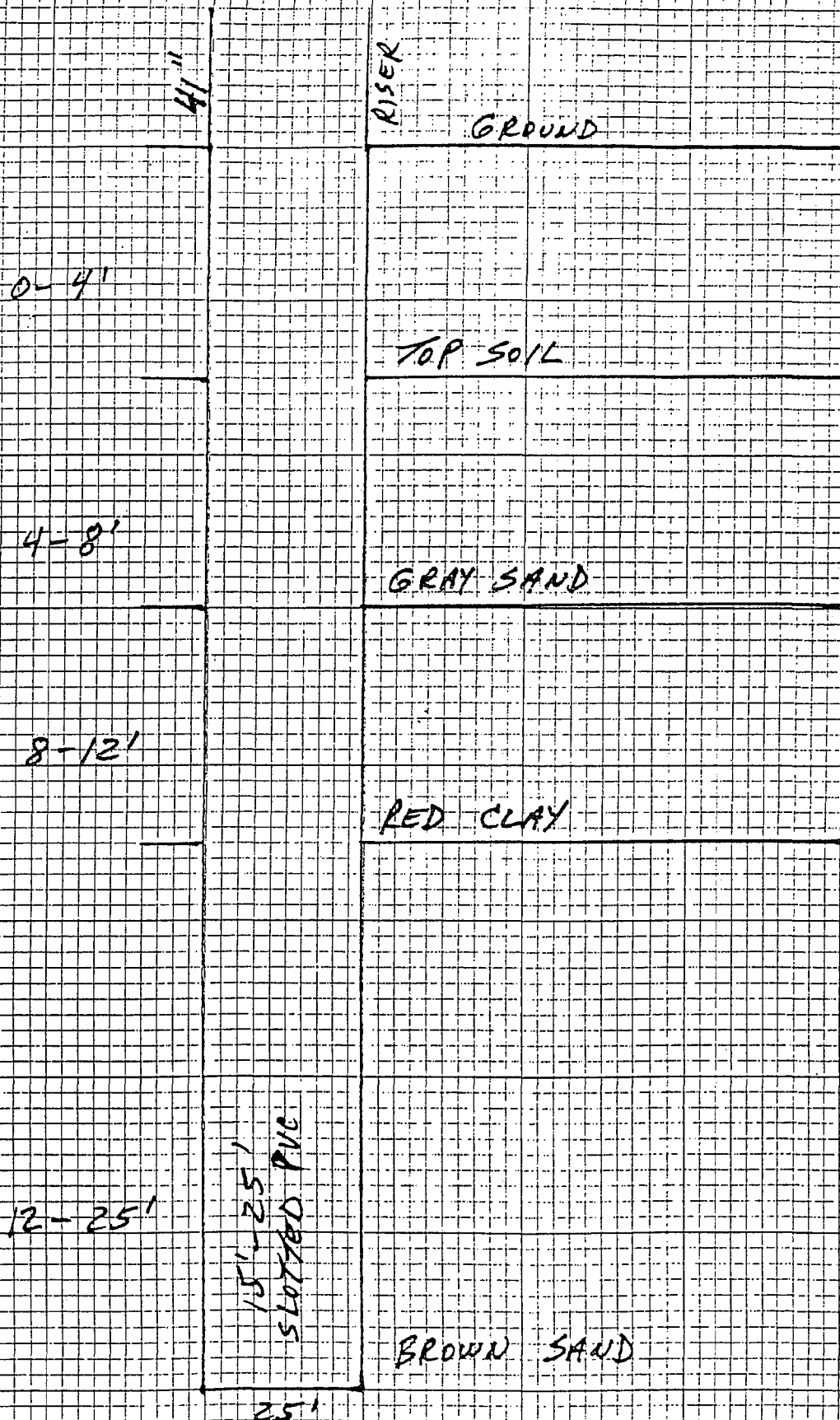
(Signed) [Signature]
(Licensed Well Driller)

(Signed) [Signature]
(Registered Driller/Trainer)

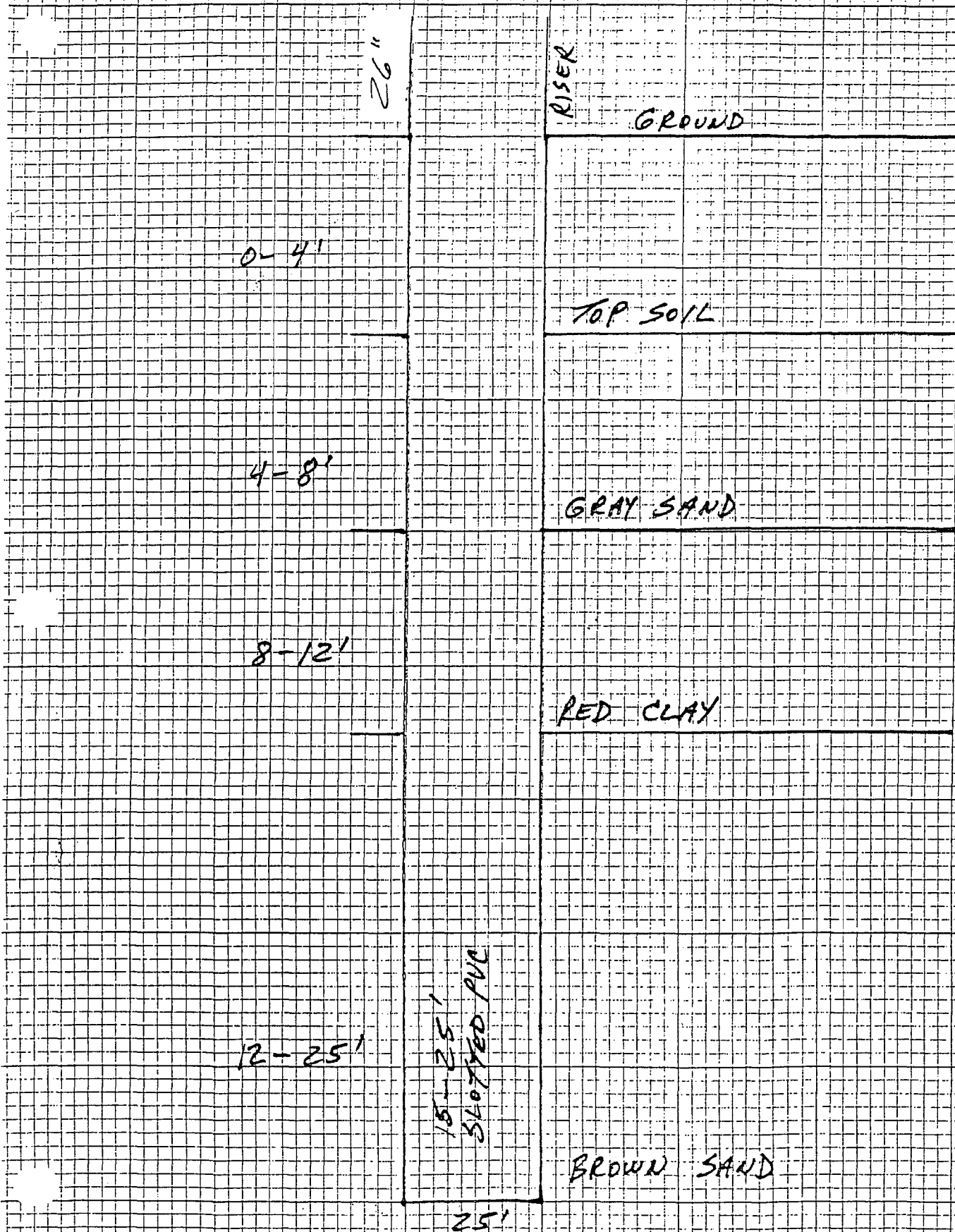
Please attach electric log, chemical analysis, and other pertinent information, if available.

Attachment 2F Cross-Sections

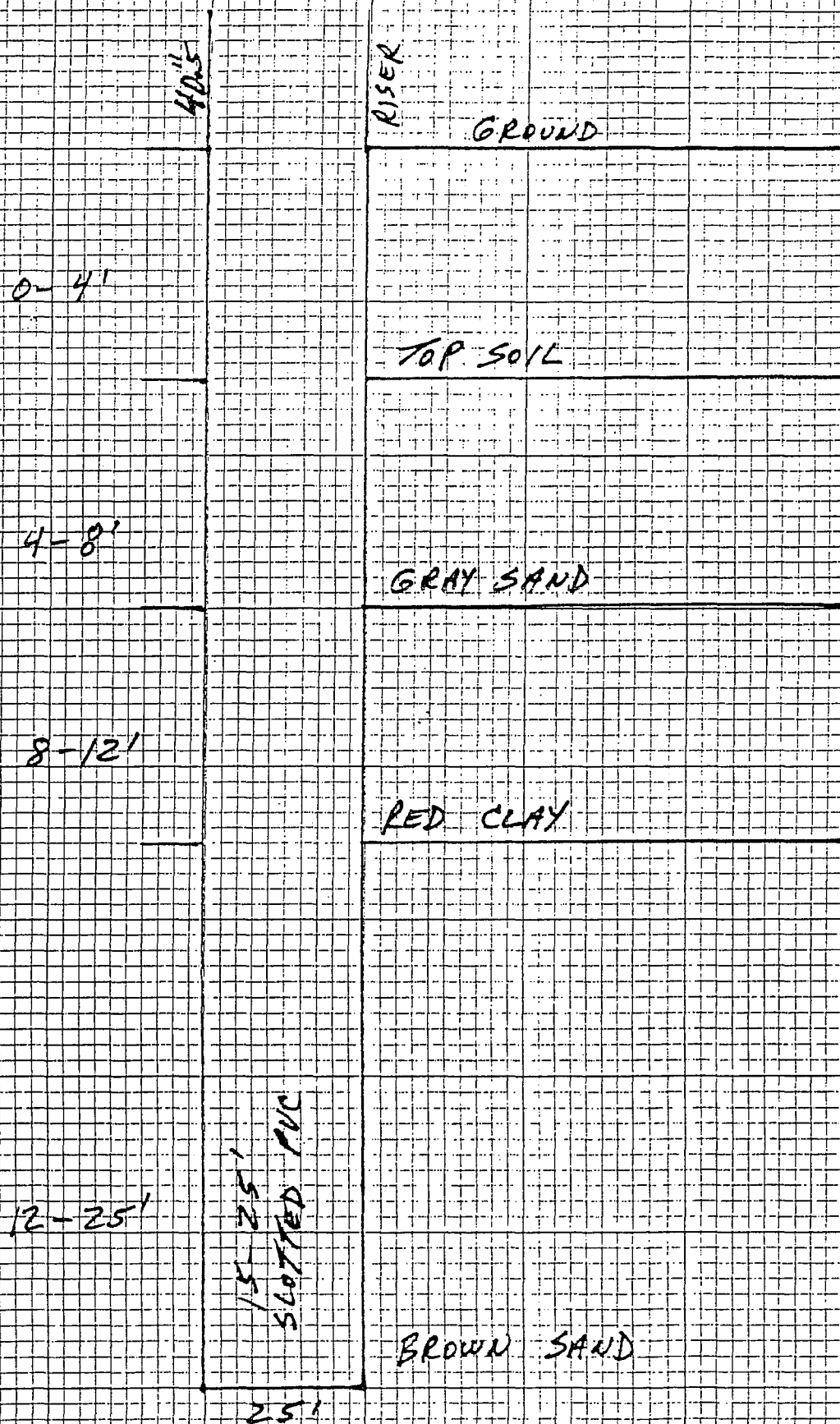
ATTACHMENT 2F CROSS-SECTIONS
MONITORING WELL #1



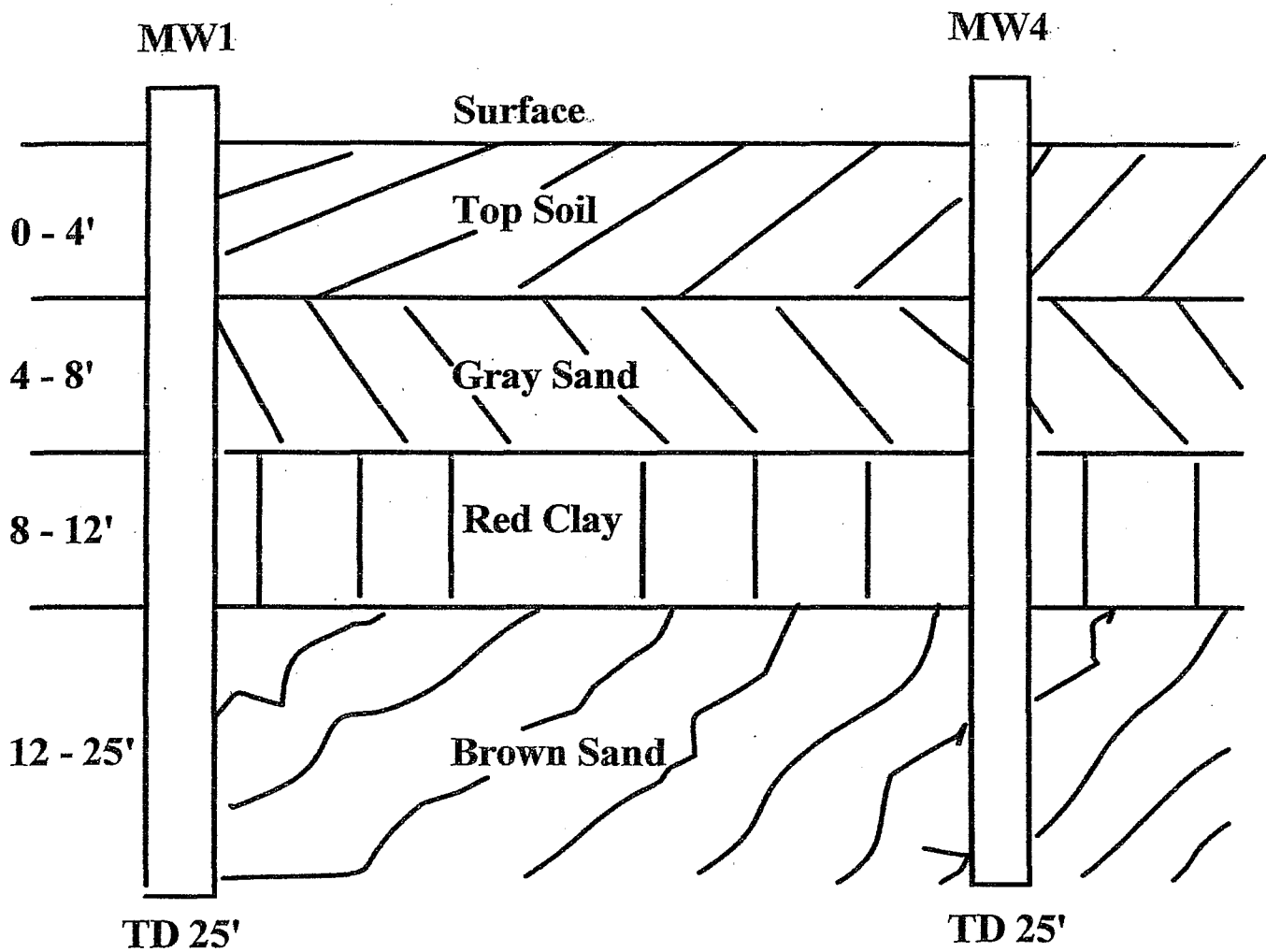
ATTACHMENT 2F CROSS-SECTIONS MONITORING WELL #2



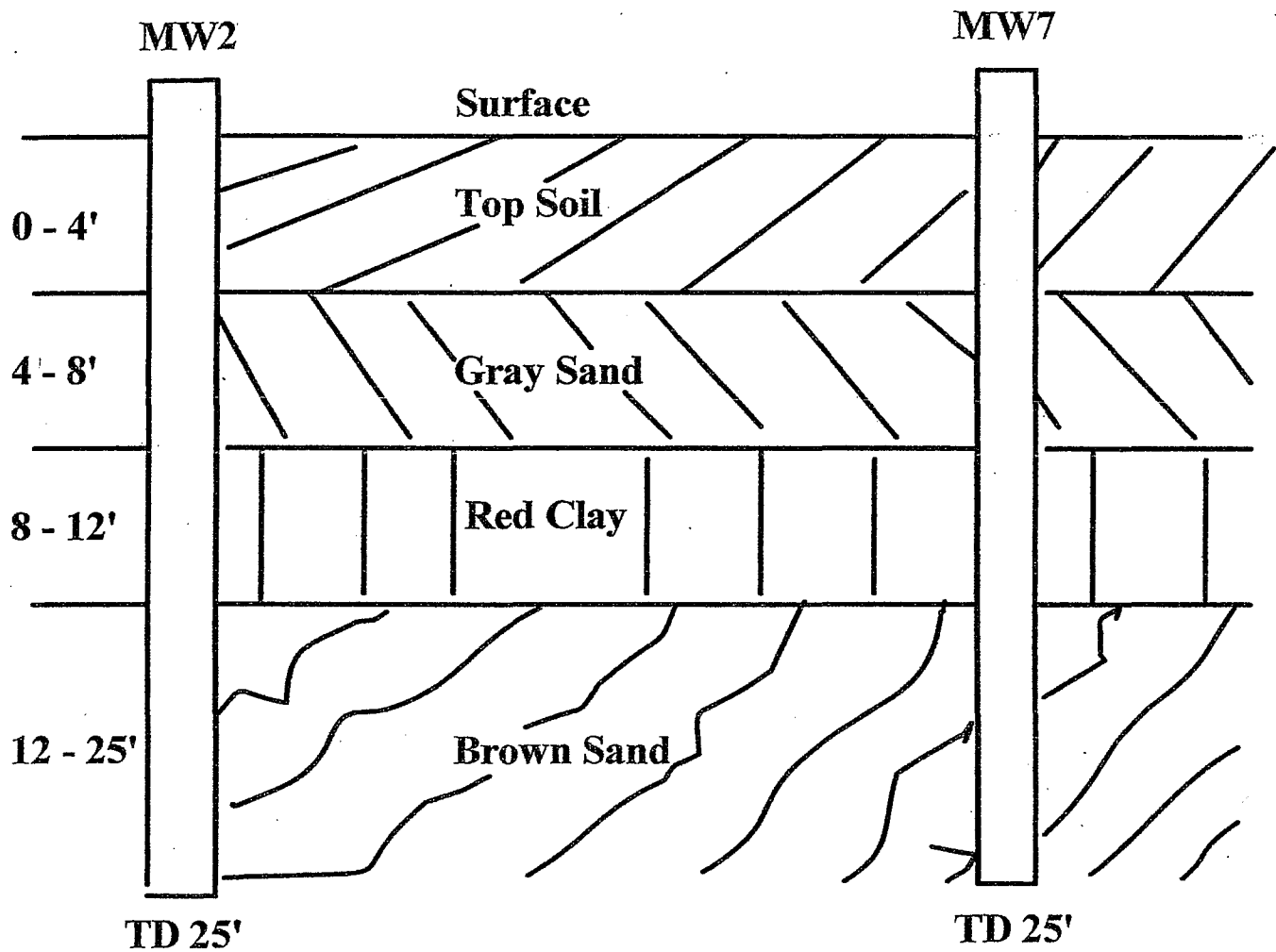
ATTACHMENT 2F CROSS-SECTIONS
MONITORING WELL #3



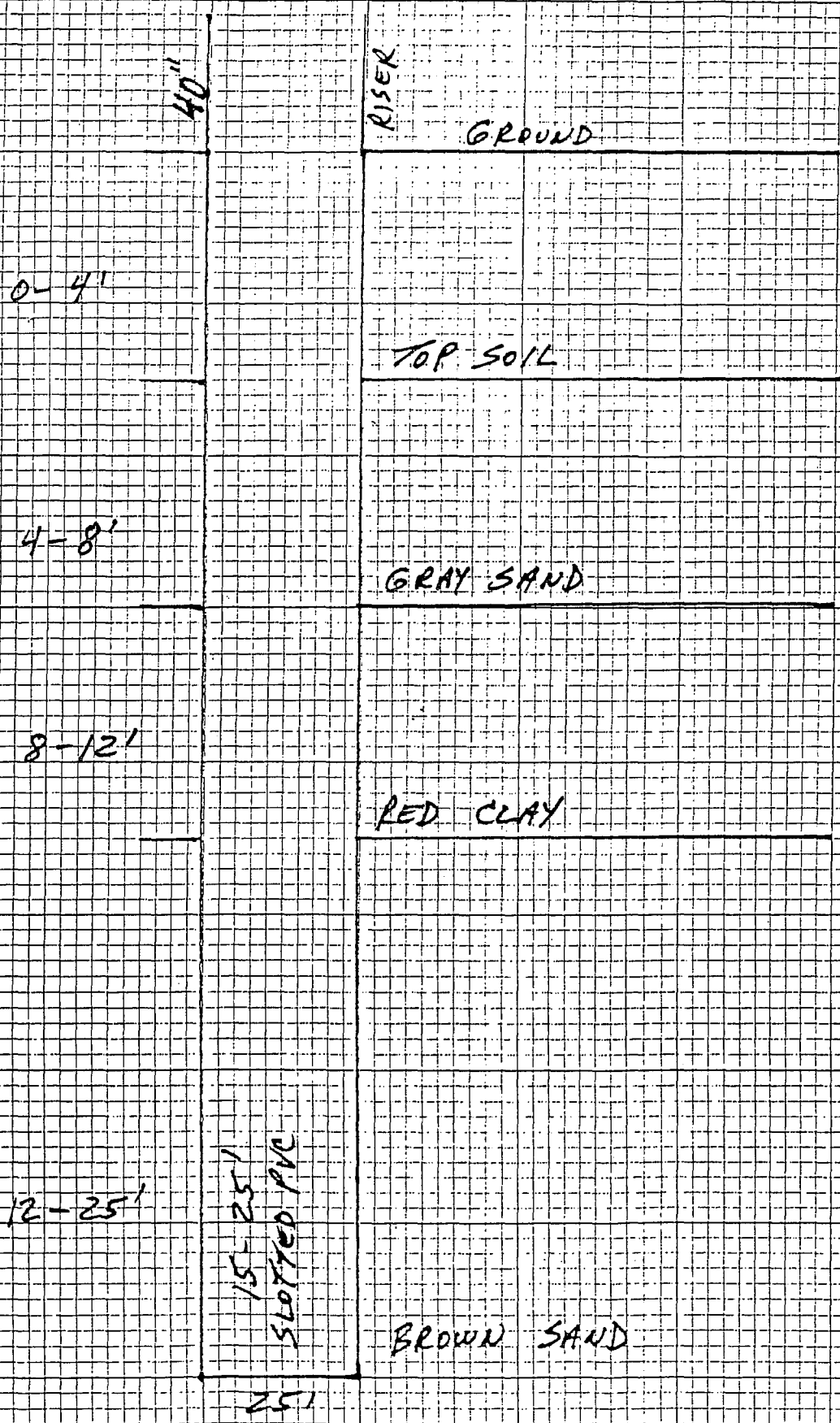
**ATTACHMENT 2F CROSS-SECTION
NORTH - SOUTH**



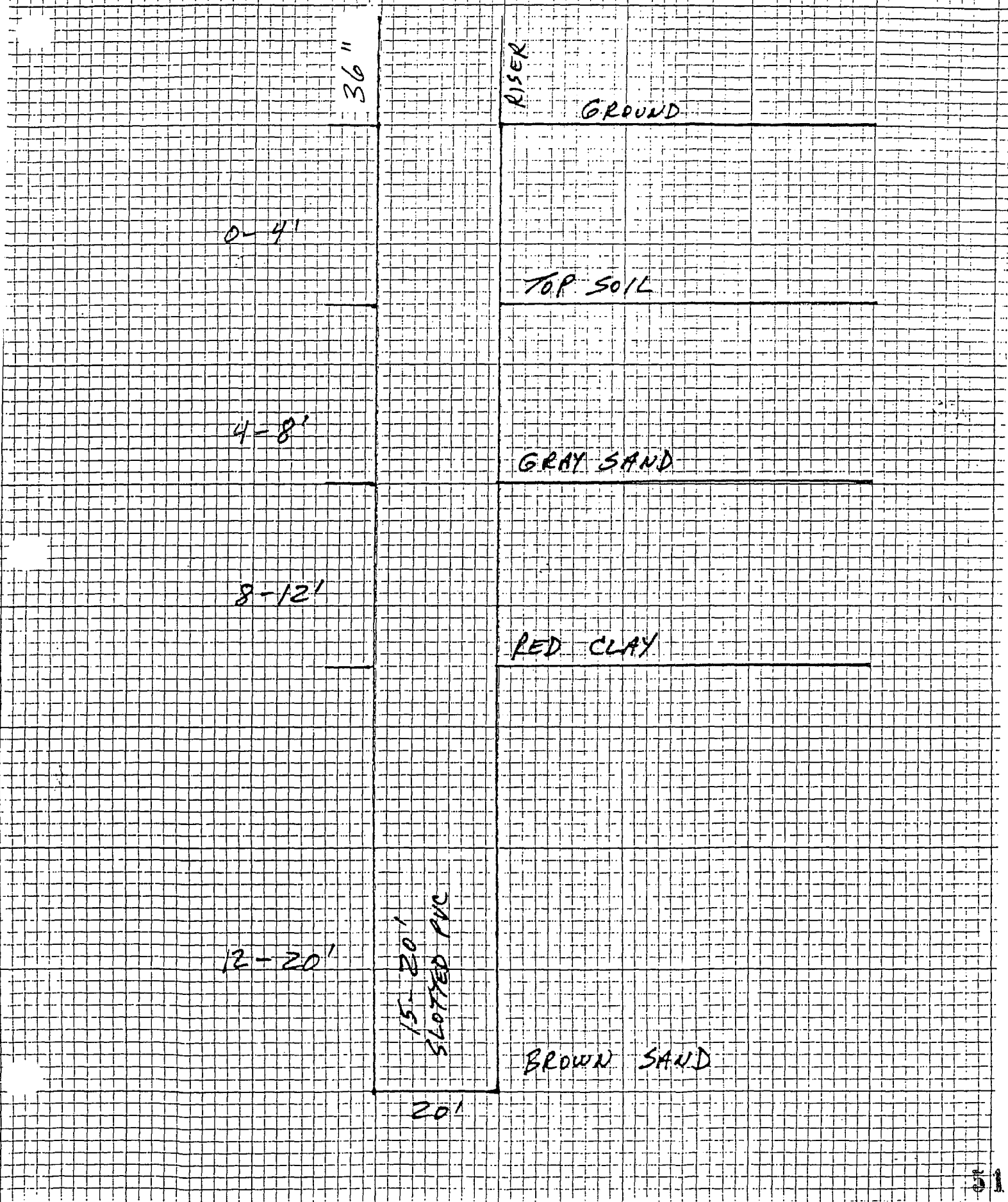
**ATTACHMENT 2F CROSS-SECTION
EAST - WEST**



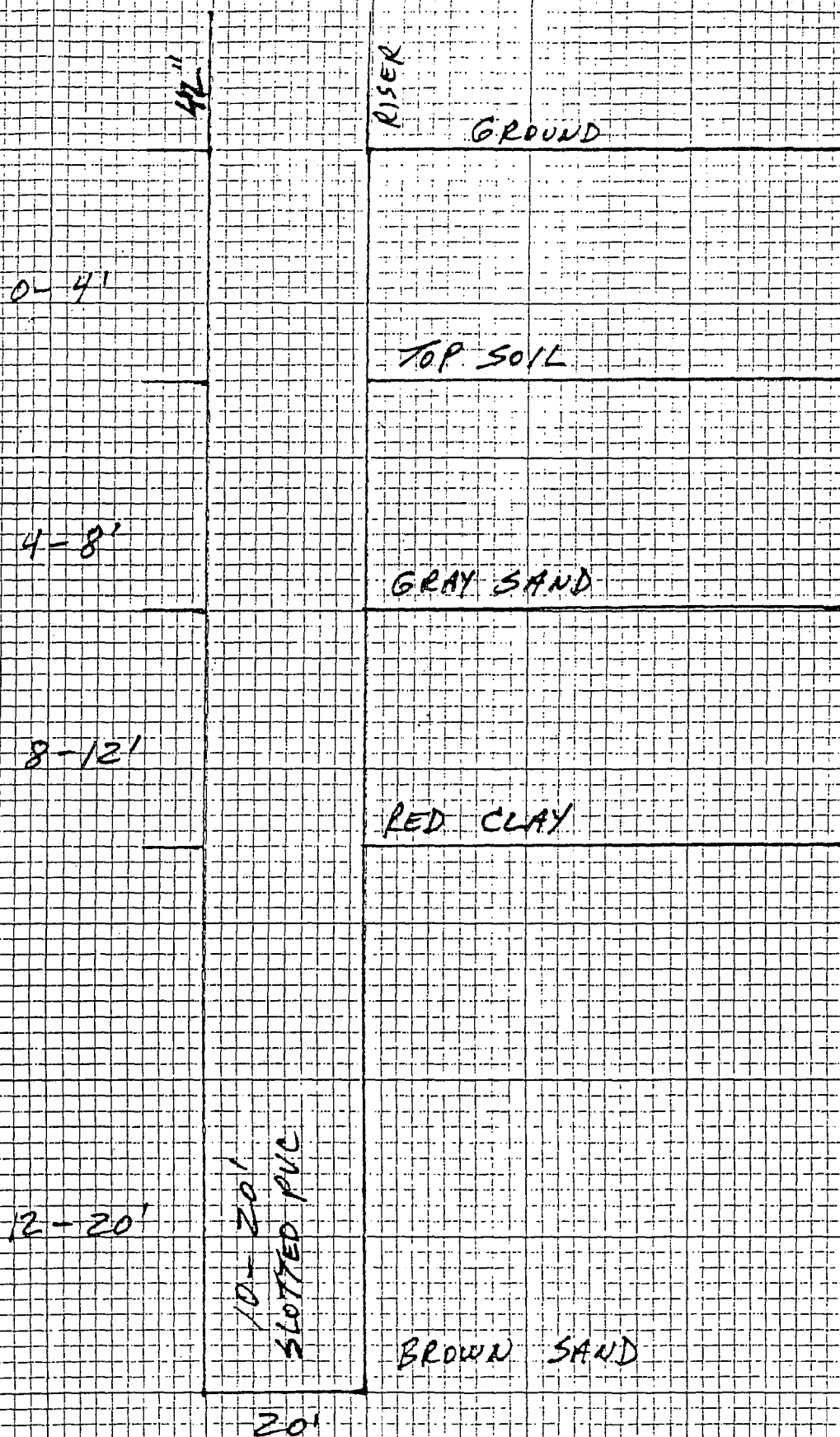
ATTACHMENT 2F CROSS-SECTIONS
MONITORING WELL # 4



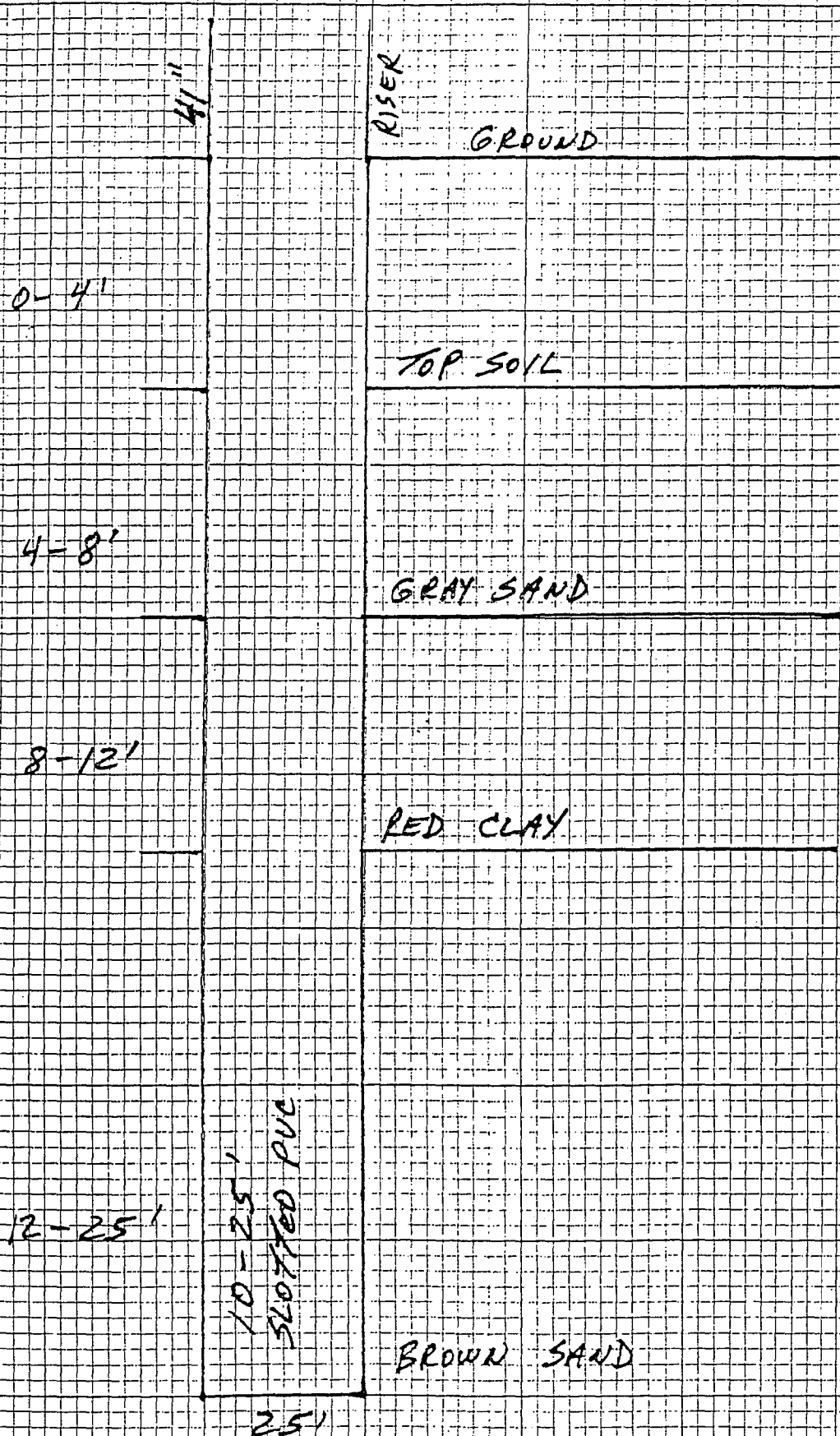
ATTACHMENT 2F CROSS-SECTIONS MONITORING WELL #5



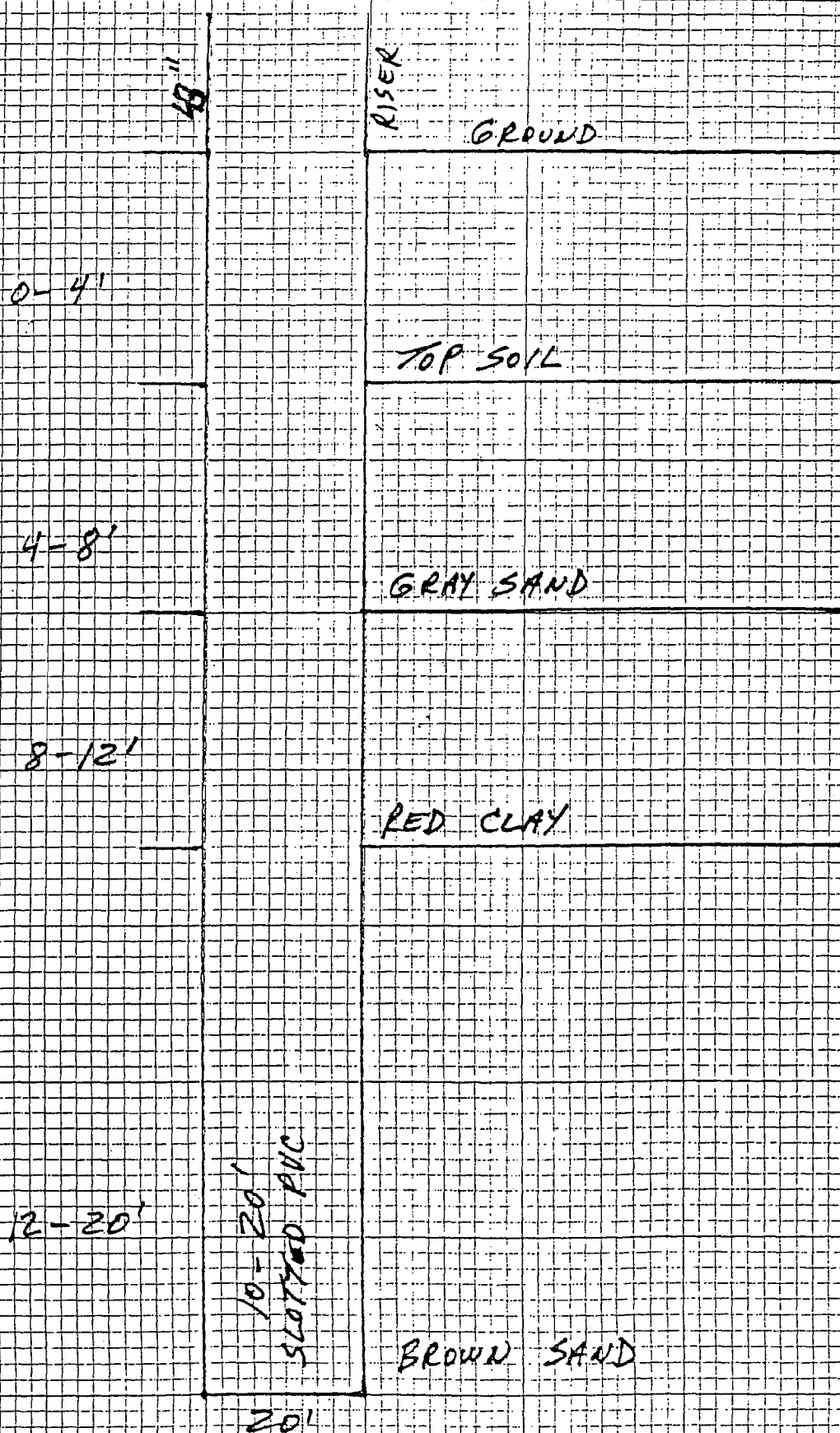
ATTACHMENT 2F CROSS-SECTIONS
MONITORING WELL #6



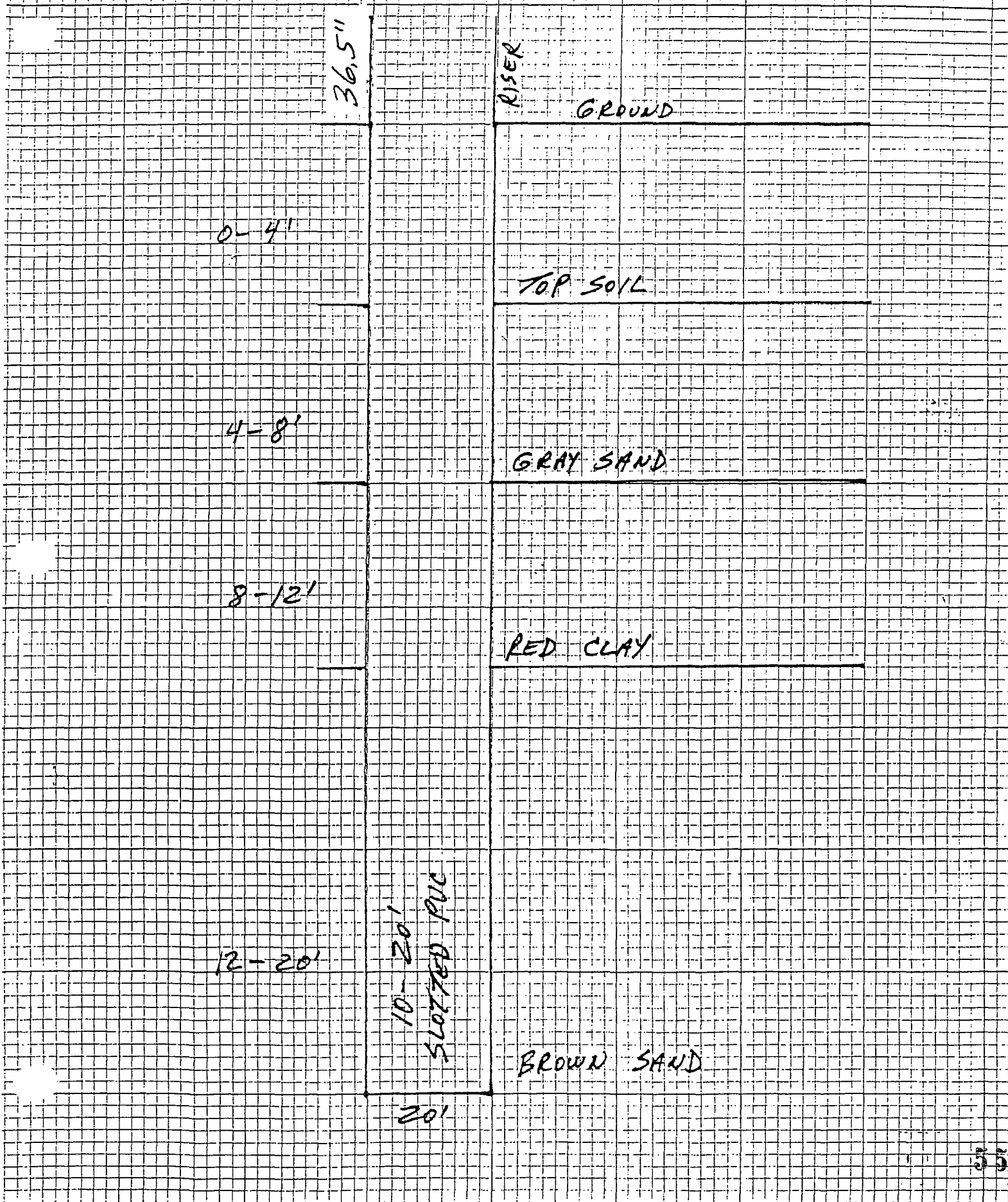
ATTACHMENT 2F CROSS-SECTIONS MONITORING WELL #7



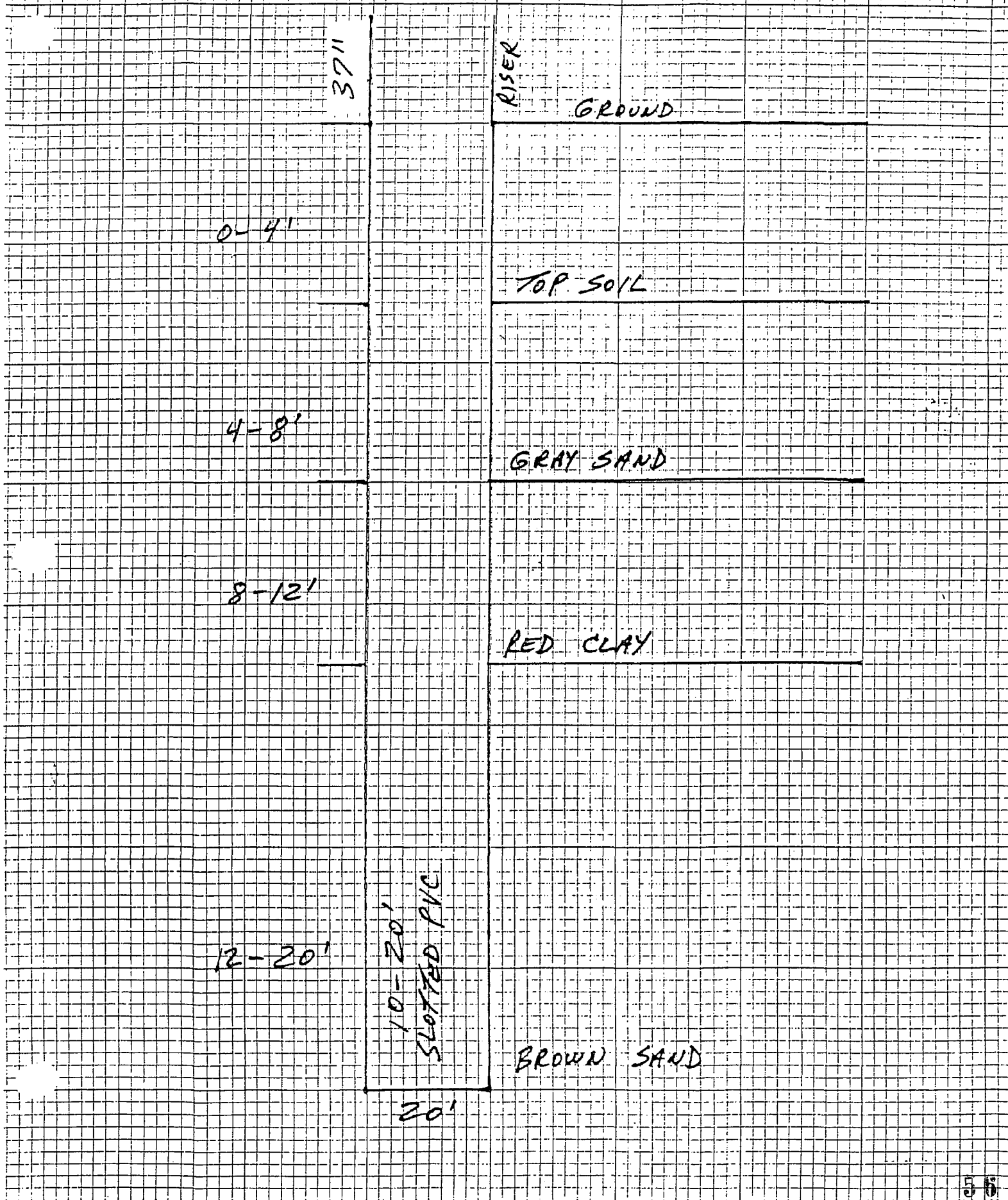
ATTACHMENT 2F CROSS-SECTIONS
MONITORING WELL #8



ATTACHMENT 2F CROSS-SECTIONS
MONITORING WELL #9



ATTACHMENT 2F CROSS-SECTIONS
MONITORING WELL #10



SECTION 6 GROUNDWATER ASSESSMENT

Worksheet 6.0 Groundwater Assessment

- Groundwater arsenic concentrations were all below the Tier 1 PCL limit for commercial/industrial property with a source greater than 0.5 acres.

Attachment 6A Groundwater Data Summary Tables

Boring No.	Arsenic (mg/l)
1	<0.005
2	<0.005
3	<0.005
4	<0.005
5	<0.005
6	<0.005
7	<0.005
8	<0.005
9	<0.005
10	<0.005
11	<0.005
12	<0.005
13	<0.005
14	<0.005
15	<0.005
16	<0.005
17	<0.005
18	<0.005
19	<0.005
20	<0.005
21	<0.005
22	<0.005
23	<0.005
24	<0.005
25	<0.005

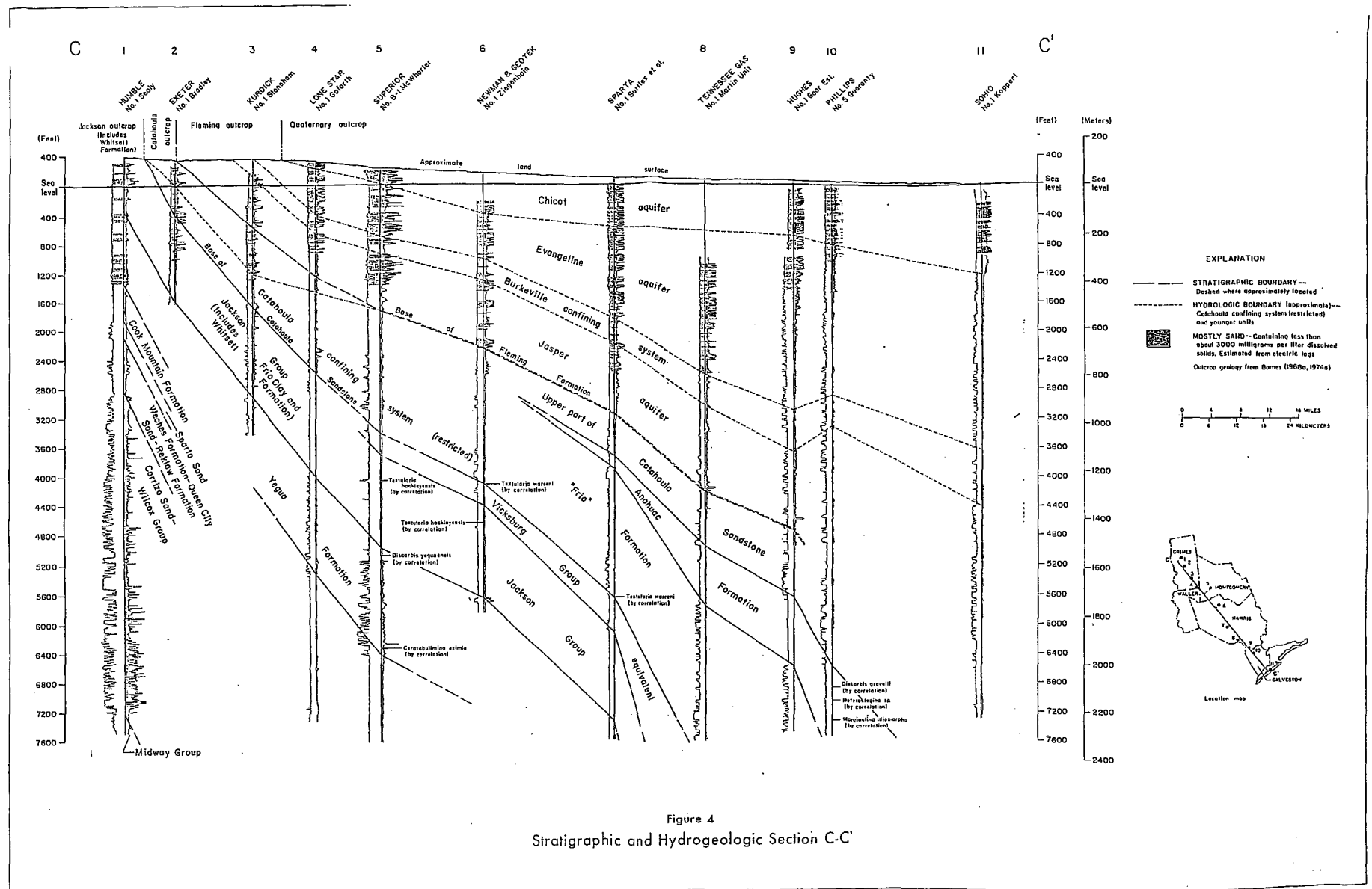


Figure 4
Stratigraphic and Hydrogeologic Section C-C'

3

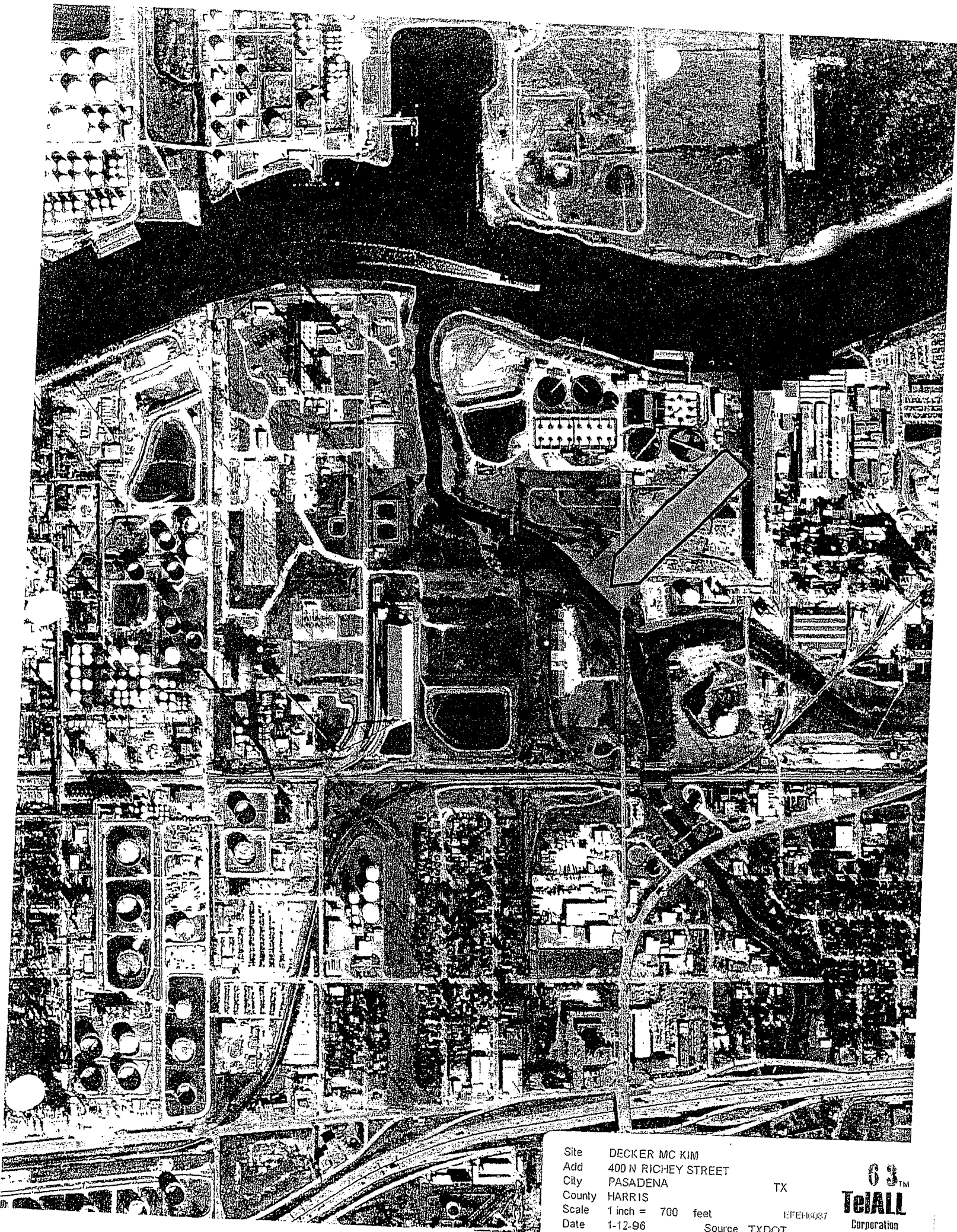
60

SECTION 3 RECEPTOR SURVEYS

Worksheet 3.0 Receptor Survey

All potential receptors are depicted in Attachments 2A and 3A.

Attachment 3A Affected Property Vicinity Map



Site DECKER MC KIM
Add 400 N RICHEY STREET
City PASADENA
County HARRIS
Scale 1 inch = 700 feet
Date 1-12-96

TX

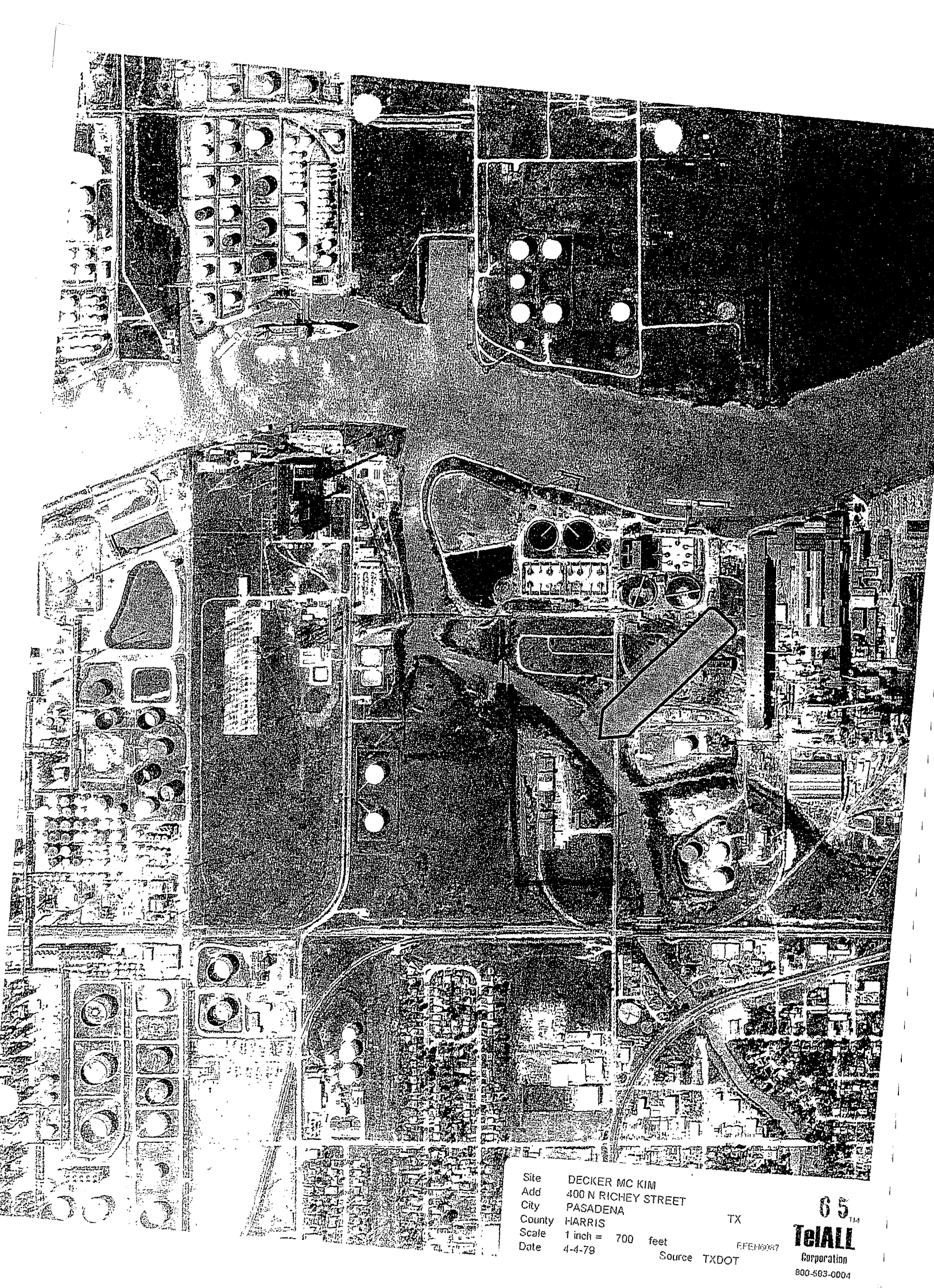
Source TXDOT

EFEN0037

63TM
TelALL
Corporation
800-583-0004



Site DECKER MC KIM
Add 400 N RICHEY STREET
City PASADENA TX
County HARRIS
Scale 1 inch = 700 feet
Date 12-2-86 Source TXDOT



Site DECKER MC KIM
Add 400 N RICHEY STREET
City PASADENA
County HARRIS
Scale 1 inch = 700 feet
Date 4-4-79

TX

RFEN0067

Source TXDOT

65TH
TelALL
Corporation
800-563-0004



Site DECKER MC KIM
Add 400 N RICHEY STREET
City PASADENA
County HARRIS
Scale 1 inch = 700 feet
Date 2-21-69

TX

Source WALLACE ZINGER

EFEH6087

66
TelALL
Corporation
800-583-0004



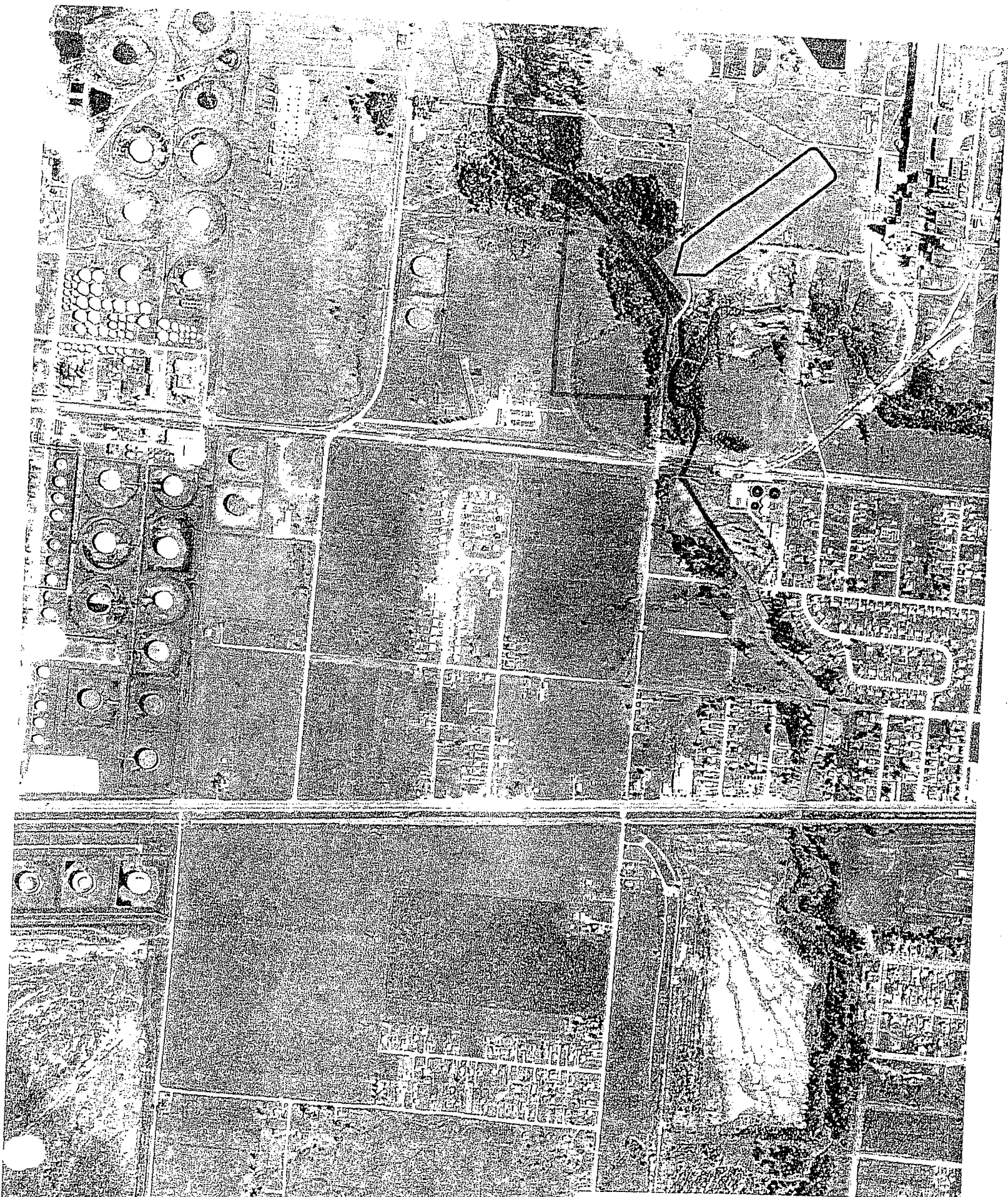
Site DECKER MC KIM
Add 400 N RICHEY STREET
City PASADENA
County HARRIS
Scale 1 inch = 700 feet
Date 4-26-53

TX

Source ASCS

EFEH0067

67
TelALLTM
Corporation
800-583-0004



Site DECKER MC KIM
Add 400 N RICHEY STREET
City PASADENA

TX

County HARRIS

Scale 1 inch = 700 feet

EFEH9067

Date 4-11-44

Source ASCS

BEST COPY AVAILABLE

68
TelALL
Corporation
800-583-0004

Worksheet 3.2 Water Well Survey

Corporation

TelALL

Phase I Support Services

1502 West Ave Suite C, Austin, TX 78701
Tel: (800) 583-0004 Fax: (512) 472-4466

4/24/2002

Scott Boyd
Environmental Risk Mgmt.
3109 N. McColl Road
McAllen TX 78502

Re: Water Well Search ERM16096

Scott Boyd

Thank you for contacting TelALL Corporation for the attached water well search. All properly filed water well records have been reviewed at both the Texas Water Development Board and the Texas Natural Resource Conservation Commission. The following is a description of information contained in these agencies.

Texas Water Development Board

This agency maintains locations and well information of the water wells it has inventoried. The locations are mapped on USGS topographic maps and on county highway maps. Both types of maps have been reviewed for this search.

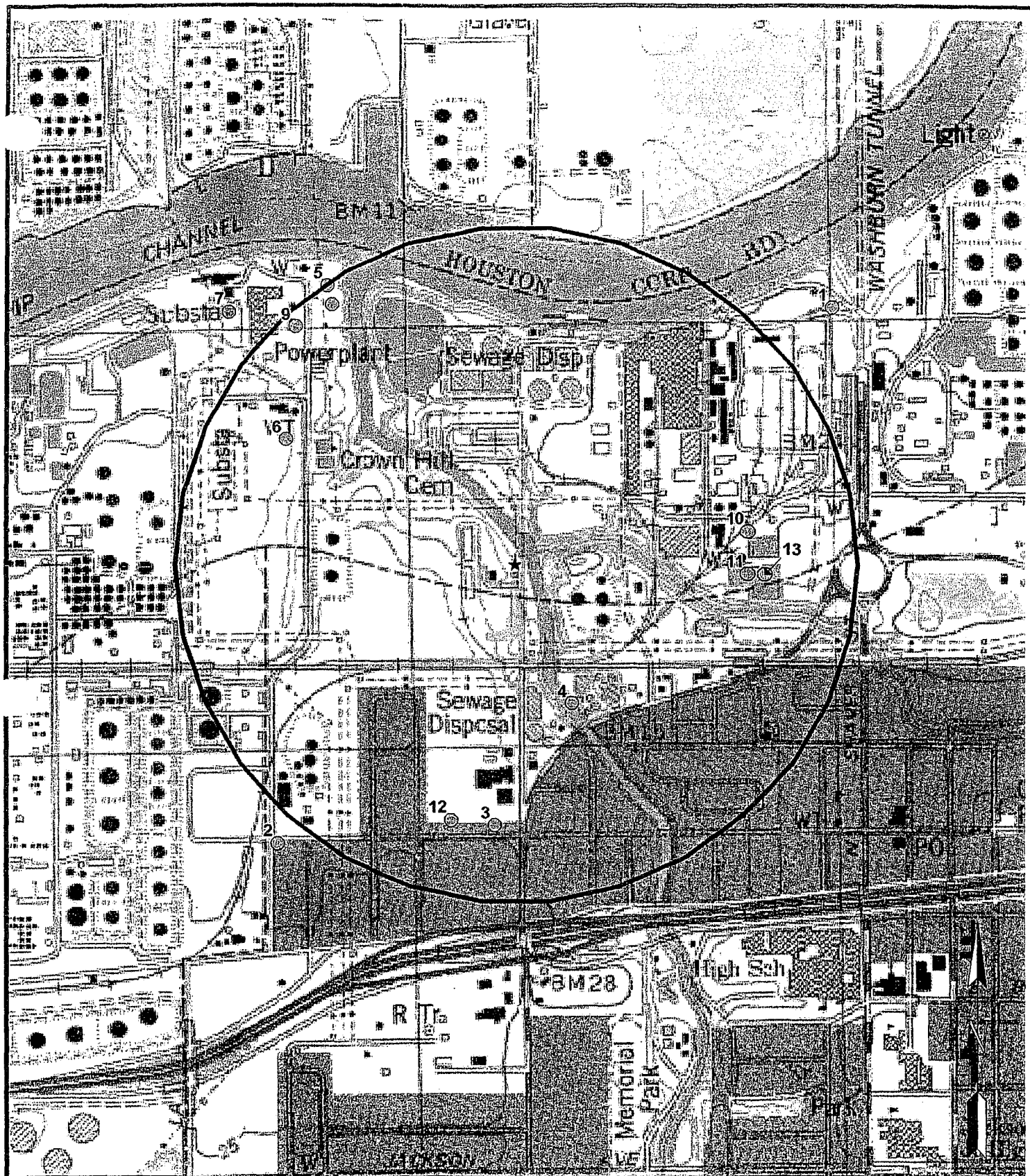
Texas Natural Resource Conservation Commission

This agency maintains the files of all water well logs submitted to the Water Well Drillers Board that have not been incorporated into the Water Development Board's located well records. Initially these well records were given a state well number and plotted on a county highway map based on the information submitted by the driller. These wells are referred to as plotted wells. Multiple plotted wells may have the same well number. In 1986, the state stopped plotting these wells. These wells were given a partial well number that corresponds to the geographical groundwater section they are filed in. For this reason, these wells are referred to as partially numbered wells. All groundwater files concerning these three types of well records have been reviewed for this search.

USGS

The USGS maintains information on 1.5 million wells nationwide to investigate the occurrence, quantity, quality, distribution, and movement of surface and underground waters. State and local governments, public and private utilities, and other Federal agencies are involved with managing the water resources.

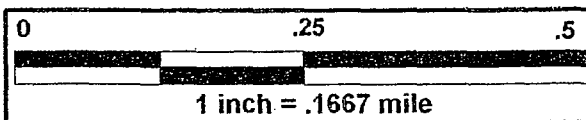
If you have any questions, please contact the TelALL Corporation at 800-583-0004.



★ Site

⊙ Mapped Water Well

Site Locations are Approximate Only



TelALL
Corporation

(800) 683-0004 WWW.TelALL.NET

EFEH6087

Jecker Mc Kim

Water Well Search*Summary of wells within 1/2 mile*400 N Richey Street
Pasadena
Harris TX

MapNumber	Well Number	Owner	Date Drilled	GridNumber	Comments
01	1B	Payne & Keller Co	5-7-77	65-23-1	
02	H-4	HL & P	11-08-86	65-123-1	
03	H-5	Arco Petroleum Products	7-15-84	65-23-1	
03	7H	WF Basham	87-46-7	87-46-7	
04	1C	Houston Lighting & Power	11-15-78	65-123-1	
05	106	HL & PC	1949	65-23-1	
06	132	USGS	1-16-74	65-23-1	
07	136	HL & PC	1941	65-23-1	
08	137	Houston Light & Power	1923	65-23-1	
09	138	Houston Light & Power	1924	65-23-1	
10	122	Champion Papers	1937	65-23-122	
11	123	Champion Papers	1937	65-23-123	
12	120	City Of Pasadena # 2	1935	65-23-1	
13	124	Champions Paper	1937	65-23-1	

TelALL Corporation

①

IB Dup
65-13-1B
For TWDB use only
Well No. 65-23-1A
Located on map
Received: 7/7/77
d/c

nd original copy by
rti' mail to the
xa Development Board
O. 1087
stin, Texas 78711
State of Texas
WATER WELL REPORT

OWNER:
Person having well drilled Payne & Keller Co. Address 8333 Hansen Houston, TX 77061
(Name) (Street or RFD) (City) (State)
Landowner same Address same
(Name) (Street or RFD) (City) (State)

LOCATION OF WELL:
County Harris miles in _____ direction from Pasadena
(N.E., S.W., etc.) (Town)
Locate by sketch map showing landmarks, roads, creeks, or Give legal location with distances and directions from
hiway number, etc.* adjacent sections or survey lines.
Labor _____ League _____
Block _____ Survey _____
Abstract No. _____
(NW 1/4 NE 1/4 SW 1/4 SE 1/4) of Section _____
North
(Use reverse side if necessary)

TYPE OF WORK (Check): New Well _____ Deepening _____ Reconditioning _____ Plugging _____	4) PROPOSED USE (Check): Domestic _____ Industrial _____ Municipal _____ Irrigation _____ Test Well _____ Other _____	5) TYPE OF WELL (Check): Rotary _____ Driven _____ Dug _____ Cable _____ Jetted _____ Bored _____
--	---	---

WELL LOG:
Diameter of hole 6 3/4 in. Depth drilled 483 ft. Depth of completed well 483 ft. Date drilled 5-7-77
All measurements made from 0 ft. above ground level.

From (ft.)	To (ft.)	Description and color of formation material	9) Casing: Type: Old _____ New _____ Steel _____ Plastic _____ Other _____ Cemented from <u>XX 0</u> ft. to <u>483</u> ft.
0	24	clay	
24	48	clay	
48	72	clay & sand	
72	96	loose sand	
96	120	" "	
120	144	blue clay	
144	168	clay	
168	216	" "	
216	240	red clay	
240	264	sand & clay	
264	288	clay	
288	312	clay & sand	
312	336	sand	
336	360	clay & sand	
360	384	clay	
384	408	hard sand	
408	432	sand	
432	456	sand	
456	480	sand	
480	483	sand	

Diameter (inches)	Setting From (ft.)	To (ft.)	Cage
4"	0	464	40

(Use reverse side if necessary)

COMPLETION (Check): Straight wall _____ Gravel packed _____ Other _____ Under reamed _____ Open Hole _____	11) WELL TESTS: Was a pump test made? Yes _____ No <u>XX</u> If yes, by whom? _____ Yield: _____ gpm with _____ ft. drawdown after _____ hrs. Bailer test _____ gpm with _____ ft. drawdown after _____ hrs. Artesian flow _____ gpm Temperature of water _____
WATER LEVEL: Static level <u>262</u> ft. below land surface Date <u>5-7-77</u> Artesian pressure _____ lbs. per square inch Date _____ Depth to pump bowls, cylinder, jet, etc., <u>340</u> ft. below land surface.	12) WATER QUALITY: Was a chemical analysis made? Yes _____ No <u>XX</u> Did any strata contain undesirable water? Yes _____ No _____ Type of water? _____ depth of strata _____

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief.

AME R. B. Lowry Water Well Drillers Registration No. 146
(Type or Print)
ADDRESS P.O. Box 8707 1327 Aldine Mail Rt. Houston TX 77009
(Street or RFD) (City) (State)
Signed R. B. Lowry Lowry Water Wells
(Water Well Driller) (Company Name)

case attach electric log, chemical analysis, and other pertinent information, if available.

ditional instructions on reverse side.

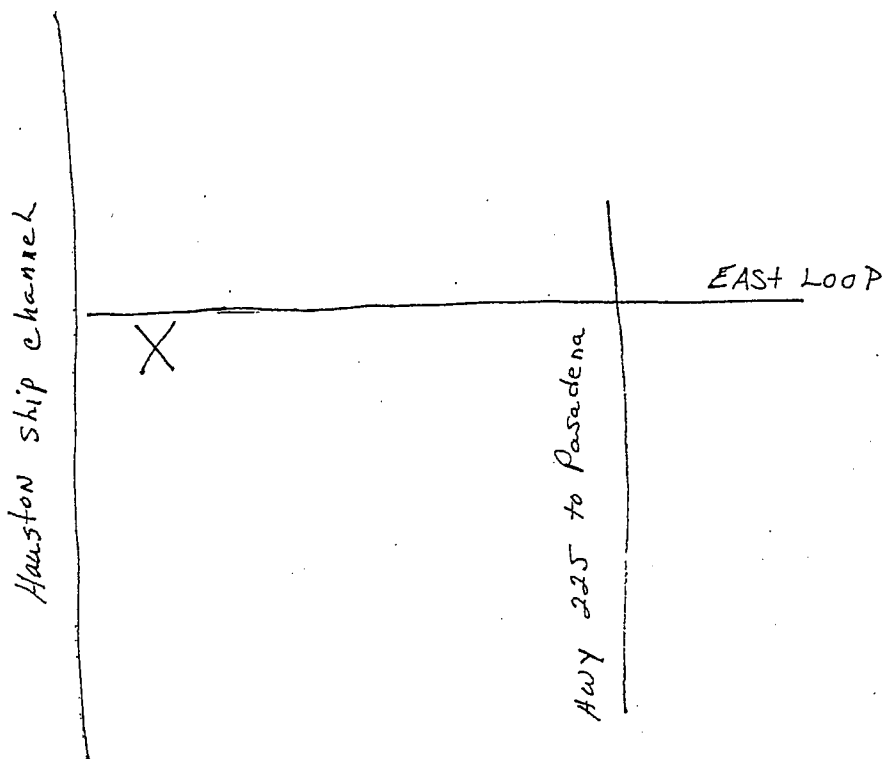
2) LOCATION OF WELL:

The sketch showing the well location must be as accurate as possible, showing landmarks, in sufficient detail so that the may be plotted on a General Highway Map of the county in which the well is located.

Reference points from which distances are measured and directions given should be of a permanent nature (e.g. highway intersections, center of towns, river and creek bridges, railroad crossings). The distance and direction from the nearest town should always be indicated.

When giving a legal description include a sketch showing location of the well within the described area, e.g. survey abstract.

Information furnished in Section 2) of the TWDDE-GW-53 is very important. Unless the well can be accurately located on a map the value of the other data contained in the Report is greatly reduced.



RECEIVED
MAY 11 1978
Central Records
Texas Dept. of Water Resources

RECEIVED
MAY 11 1978

Central Records
Texas Dept. of Water Resources

STATE OF TEXAS WATER WELL REPORT

1) Owner: H L & P Address: P. O. BOX 1700 City: HOUSTON State: TX ZIP: 77001
2) LOCATION OF WELL: County: HARRIS 8.5 miles in SE direction from HOUSTON

LEGAL DESCRIPTION:

Section No.: H253 Block No.: SE Township: HOUSTON
Abstract No.: LIGHT RD. Survey Name: DEEPWATER
Distance and direction from two intersecting section or survey lines: HWY 225 & LIGHT RD.

3) TYPE OF WORK: NEW WELL 4) PROPOSED USE: INDUSTRIAL 5) DRILLING METHOD: MUD ROTARY
6) WELL LOG: DIAMETER OF HOLE: 6.5 FROM 0 TO 660 7) BOREHOLE METHOD: STRAIGHT WALL
IF GRAVEL... FROM FT TO FT

Date Drilled: 11/08/86

GEOLOGICAL DESCRIPTION:

FROM	TO	DESCRIPTION
0	3	TOP SOIL
3	165	CLAY
165	176	SAND
176	257	CLAY
257	326	SAND
326	380	CLAY
380	440	SAND
440	555	CLAY
555	562	SAND
562	565	ROCK
565	569	CLAY
565	578	SAND
578	603	CLAY
603	624	SAND
624	629	CLAY
629	660	SAND

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:

DIA	NEW/USED	DESCRIPTION	FROM	TO	GAGE CASING SCREEN
4	N	GALVANIZED CASING	0	600	40
2.5	N	GALVANIZED LINER	566	650	40
2.5	N	EVERFLO SCREEN	650	660	12

9) CEMENTING DATA:

Cemented from 600 FT. TO 0 FT.
FT. TO FT.

Method used: PRESSURE

Cemented by: ODCI

10) SURFACE COMPLETION:

OTHER

11) WATER LEVEL:

STATIC LEVEL : 250 FT. DATE 11/14/86

ARTESIAN FLOW: 6PM. DATE / /

12) PACKERS: TYPE DEPTH
LEAD SEAL 566

13) TYPE PUMP:
SUBMERSIBLE
DEPTH TO PUMP: 315

14) WELL TEST:

JETTED

YIELD: 80 GPM WITH FT DRAWDOWN AFTER HRS

15) WATER QUALITY:

TYPE OF WATER: GOOD WATER DEPTH OF STRATA: 31
NO STRATA OF UNDESIRABLE WATER PENETRATED

NO CHEMICAL ANALYSIS MADE

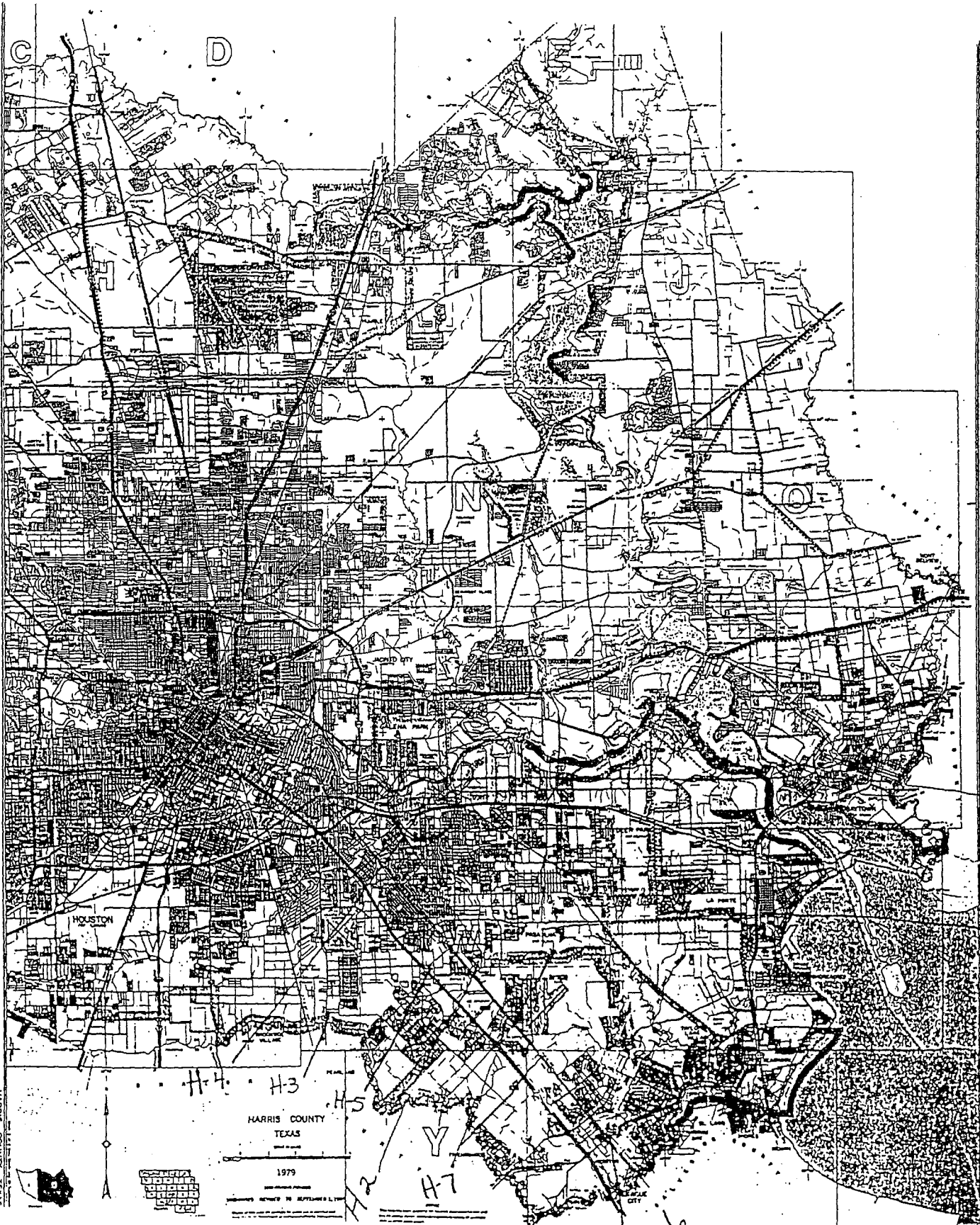
COMPANY NAME: O'DAY DRILLING CO., INC. WATER WELL DRILLER'S LICENSE NO.: 1877
ADDRESS: P. O. BOX 162 CITY: PEARLAND STATE: TX ZIP CODE: 77588

(signed)

Michael O'Day

(signed)

65-23-1



1 WA
N
M
ANY N
SS: 1
30)

PORT O
sis on
elief, 1 U
(Type o
or RFO

HARRIS COUNTY TEXAS

HARRIS COUNTY
TEXAS

1979

REVISIONS
REVISIONS
REVISIONS

STATE OF TEXAS, WATER WELL REPORT

③

1) Owner: ARCO PETROLEUM PRODUCTS Address: P. O. BOX 2451 City: HOUSTON State: TX ZIP: 77252
2) LOCATION OF WELL:
County: HARRIS 8 miles in SE direction from HOUSTON

3mi NISH
8mi WIEL

LEGAL DESCRIPTION:

Section No.: H253 Block No.: SE Township: HOUSTON
Abstract No.: ARCO PLANT Survey Name: AES DEEPWATER
Distance and direction from two intersecting section or survey lines: HWY 225 & LIGHT CO. RD.

Hs

3) TYPE OF WORK: NEW WELL
4) PROPOSED USE: PUBLIC SUPPLY
5) DRILLING METHOD: MUD ROTARY

meqon 65-16.5

6) WELL LOG: DIAMETER OF HOLE 7) BOREHOLE METHOD:
DIAMETER FROM TO
8.5 0 540 STRAIGHT WALL
6.5 540 599 IF GRAVEL... FROM FT TO FT

Date Drilled: 07/15/84

GEOLOGICAL DESCRIPTION:

FROM	TO	DESCRIPTION
0	5	TOP SOIL
5	76	CLAY
76	85	SAND
85	280	CLAY
280	300	SAND & CLAY
300	320	CLAY
320	330	SAND
330	400	CLAY
400	415	SAND
415	430	CLAY
430	440	SAND
440	544	CLAY
544	560	SAND
560	570	CLAY
570	580	SAND
580	584	CLAY
584	590	SAND
590	599	CLAY

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:

DIA	NEW/USED	DESCRIPTION	FROM	TO	GAGE CASING SCREEN
5	N	BLACK CASING	0	537	40
3	N	BLACK CASING	523	544	40
3	N	S/S SCREEN	544	560	12
3	N	BLACK CASING	560	570	40
3	N	S/S SCREEN	570	580	12
3	N	S/S SCREEN	584	590	12

9) CEMENTING DATA:

Cemented from 537 FT. TO 0 FT.
FT. TO FT.
Method used: PRESSURE
Cemented by: ODCI

10) SURFACE COMPLETION:

SLAB

11) WATER LEVEL:

STATIC LEVEL : 210 FT. DATE 07/15/84
ARTESIAN FLOW: GPM. DATE / /

12) PACKERS: TYPE DEPTH
LEAD SEAL 523

13) TYPE PUMP:
SUBMERSIBLE
DEPTH TO PUMP: 315

14) WELL TEST:
JETTED
YIELD: 50 GPM WITH 50 FT DRAWDOWN AFTER HRS

15) WATER QUALITY:

TYPE OF WATER: GOOD WATER DEPTH OF STRATA: 32
NO STRATA OF UNDESIRABLE WATER PENETRATED

CHEMICAL ANALYSIS MADE

RECEIVED
SEP - 2 1986

COMPANY NAME: O'DAY DRILLING CO., INC. WATER WELL DRILLER'S LICENSE NO.: 1877
ADDRESS: P. O. BOX 162 CITY: PEARLAND STATE: TX ZIP CODE: 77588

TEXAS WATER COMMISSION

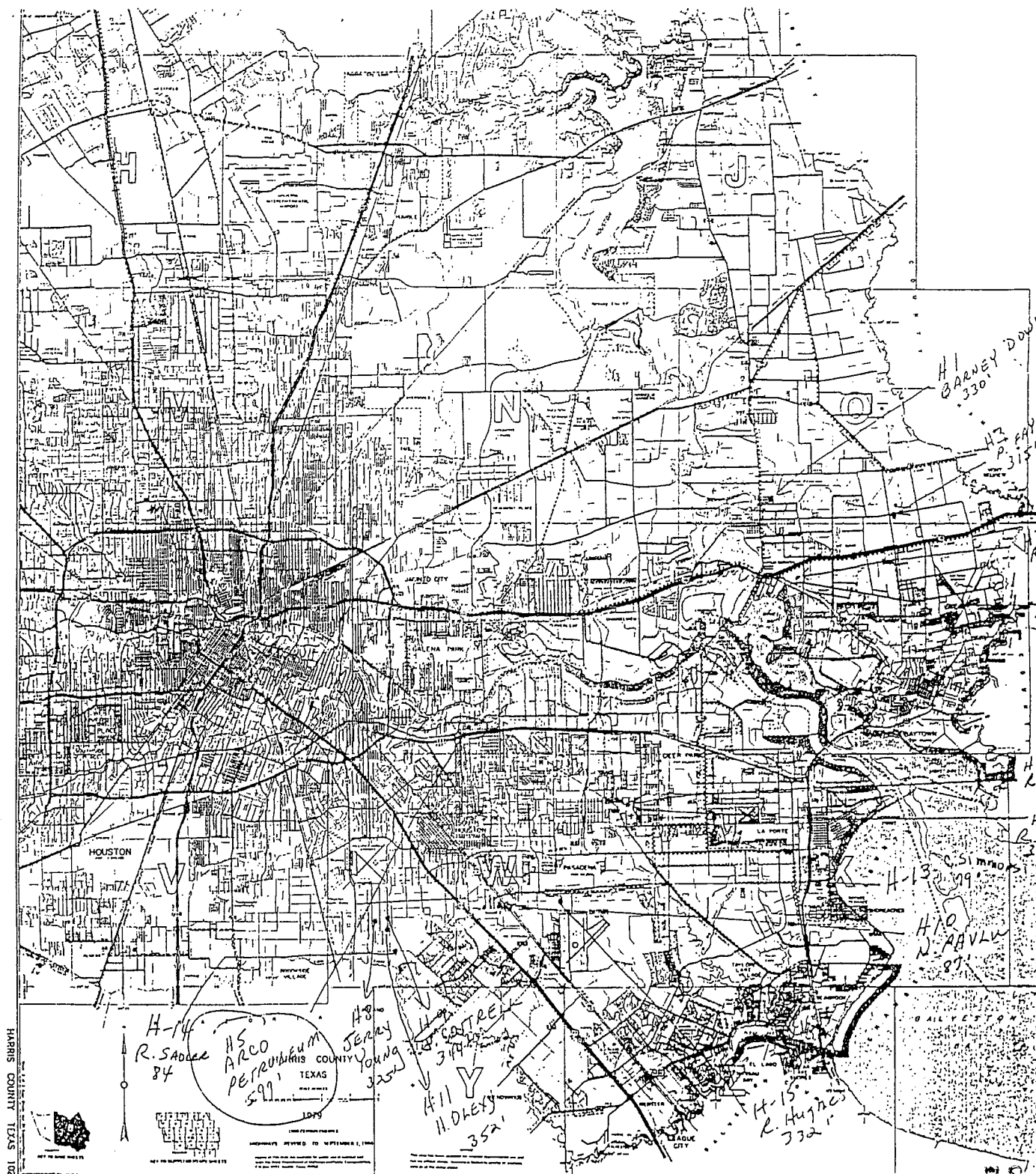
(signed)

Michael O'Day

(signed)

CWA

77



RECEIVED
AUG - 9 1979

65-23-1C

4

Send original copy by
certified mail to the
Texas Department of Water Resources
P. O. Box 13087
Austin, Texas 78711

State of Texas
WATER WELL REPORT

Texas Dept. of Water Resources

For TDWR use only
Well No. _____
Located on map _____
Received: _____

OWNER Houston Lighting & Power Co Address P.O. Box 1700, Houston TX 77001
(Name) (Street or RFD) (City) (State) (Zip)

2) LOCATION OF WELL:
County Harris miles in _____ direction from Pasadena
(N.E., S.W., etc.) (Town)

Driller must complete the legal description to the right
with distance and direction from two intersecting section
or survey lines, or he must locate and identify the
well on an official Quarter- or Half-Scale Texas County
General Highway Map and attach the map to this form.

☐ Legal description:
Section No. _____ Block No. _____ Township _____
Abstract No. _____ Survey Name _____
Distance and direction from two intersecting section or survey lines _____
☒ See attached map.

3) TYPE OF WORK (Check):
☒ New Well ☐ Deepening
☐ Reconditioning ☐ Plugging

4) PROPOSED USE (Check):
☐ Domestic ☐ Industrial ☐ Public Supply
☐ Irrigation ☐ Test Well ☒ Other Business

5) DRILLING METHOD (Check):
☒ Mud Rotary ☐ Air Hammer ☐ Driven ☐ Bored
☐ Air Rotary ☐ Cable Tool ☐ Jetted ☐ Other _____

6) WELL LOG:
Date drilled 11-15-78

DIAMETER OF HOLE		
Dia. (in.)	From (ft.)	To (ft.)
	Surface	
6 3/4		236

7) BOREHOLE COMPLETION:
☐ Open Hole ☒ Straight Wall ☐ Underreamed
☐ Gravel Packed ☐ Other _____
If Gravel Packed give interval ... from _____ ft. to _____ ft.

From (ft.)	To (ft.)	Description and color of formation material	Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial	Setting (ft.)	Gage Casing Screen
0	24	clay/sand					
24	48	sand/clay					
48	72	sand/clay/rock	4	new	galvanized casing	236	0
72	96	clay/gravel/sand	2 1/2	"	metal blank	238	228
96	120	sand	2 1/2		rodbase met. screen	248	238
120	144	sand/gravel					
144	168	b/sand-clay					
168	192	b/sand-clay					
192	216	clay l/sand-clay					
216	240	clay b/sand, sand					
240	248	sand, clay					

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:

Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial	Setting (ft.)	Gage Casing Screen
4	new	galvanized casing	236	0
2 1/2	"	metal blank	238	228
2 1/2		rodbase met. screen	248	238

CEMENTING DATA
Cemented from 236 ft. to 0 ft.
Method used Haliburton
Cemented by Lowry Water Wells
(Company or Individual)

9) WATER LEVEL:
Static level 150 ft. below land surface Date 11--78
Artesian flow _____ gpm. Date _____

10) PACKERS: Type Depth

11) TYPE PUMP:
☐ Turbin ☐ Jet ☒ Submersible ☐ Cylinder
☐ Other _____
Depth to pump bowls, cylinder, jet, etc., 210 ft.

13) WATER QUALITY:
Did you knowingly penetrate any strata which contained undesirable water? ☐ Yes ☒ No
If yes, submit "REPORT OF UNDESIRABLE WATER"
Type of water? _____ Depth of strata _____
Was a chemical analysis made? ☒ Yes ☐ No

12) WELL TESTS:
☐ Type Test: ☐ Pump ☐ Boiler ☐ Jetted ☐ Estimated
Yield: _____ gpm with _____ ft. drawdown after _____ hrs.

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief.

IAME R. B. Lowry Water Well Drillers Registration No. 146
(Type or Print)
RD Rt. 1 Box 361, Dickenson, TX 77539
(Street or RFD) (City) (State) (Zip)
Signed R. B. Lowry Lowry Water Wells
(Water Well Driller) (Company Name)

Please attach electric log, chemical analysis, and other pertinent information, if available.

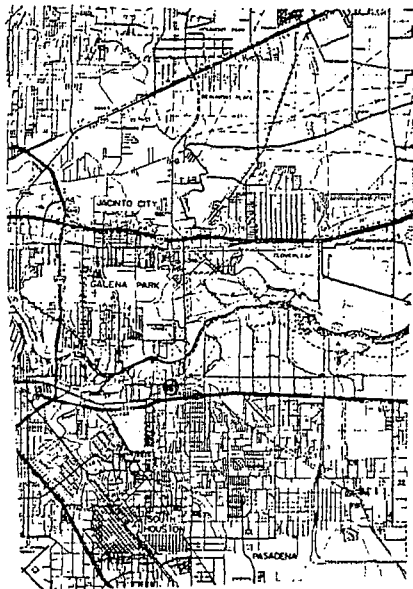
2) LOCATION OF WELL

The sketch showing the well location must be as accurate as possible, showing landmarks, in sufficient detail so that the well may be plotted on a General Highway Map of the county in which the well is located.

Reference points from which distances are measured and directions given should be of a permanent nature (e.g. highway intersections, center of towns, river and creek bridges, railroad crossings). The distance and direction from the nearest town should always be indicated.

When giving a legal description include a sketch showing location of the well within the described area, e.g. survey abstract.

Information furnished in Section 2 of the TDWR-0392 is very important. Unless the well can be accurately located on a map the value of the other data contained in the Report is greatly reduced.



RECEIVED
JAN 11 1961
CR/EDWR

Well No. 25-65-23-106

WATER RESOURCES DIVISION

Date 8-28-68 Had PASADENA 1955

L	J
---	---

Sequential
number:

B & M

1154-

1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 26

42 **N**

• **W**

72 []

73

74

74 ☐

π

三

SAME AS ON MASTER CARD Depth well: 940 ft 940 Meas. RECT 24 3

18

29

— [9.]

17

5:0

22

□

Low 48

47 **3**

83

☐

1

11

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

2

[illegible]

Well No. LJ-65-23-106

Well No. LJ-65-23-106Latitude-longitude 29.43.27 95.13.29

HYDROGEOLOGIC CARD

SAVE AS ON MASTER CARD
 Physiographic Province: COASTAL PLAIN 03 Section:
 Drainage Basin: F 51R Subbasin:

(D) (C) (K) (Y) (R) (K) (L)
 Topo of depression, stream channel, dunes, flat, hilltop, sink, swamp.
 well site: (0) (F) (S) (T) (U) (V)
 offshore, pediment, hillside, terrace, undulating, valley flat

MAJOR
 Aquifer: system series T aquifer, formation, group E

Lithology: Origin: Aquifer Thickness: ft

Length of well open to: 99 ft 99 Depth to top of: ft

MINOR
 Aquifer: system series aquifer, formation, group

Lithology: Origin: Aquifer Thickness: ft

Length of well open to: 99 ft 99 Depth to top of: ft

* Intervals Screened:

Depth to consolidated rock: ft Source of data:

Depth to basement: ft Source of data:

Surficial material: Infiltration characteristics:

Coefficient Trans: gpd/ft Coefficient Storage:

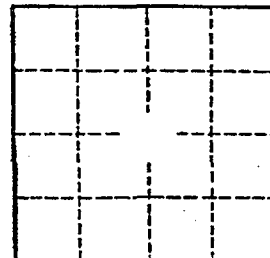
Coefficient Perm: gpd/ft²; Spec cap: gpm/ft; Number of geologic cards:

* 638-661 .021 GA.
 678-805 .021 GA.
 844-860 .021 GA.
 878-900 .018 GA.
 908-931 .018 GA.
99

UNDERGRADED 30"

530'-18" CSG,

NIPPLE + BACK PRESSURE VALVE.

Well No. LJ-65-23-106

LJ-65-23-106

ID	318
agency	USGS
site_no	
station_nm	LJ-65-23-106
latitude	29.7242
longitude	-95.2247
district	48
county	201
basin	
topo	
construction date	194901
site use 1	W
site use 2	
site use 3	
water use 1	N
water use 2	
water use 3	
nat water use	IN
aquifier	121EVGL
aqfr type	
well depth	940
hole depth	
depth src	

J-65-23-132

6

WELL SCHEDULE

U. S. DEPT. OF THE INTERIOR

GEOLOGICAL SURVEY

WATER RESOURCES DIVISION

Northern most observation well, So. of H&P #6

MASTER CARD

Record by D. Jorgensen Source of data owner Date 1-16-74 Map Posedonia 1:24000
State Texas County Harris (or town) 48 Sequential number: 4
Latitude: 29 43 15 N Longitude: 09 51 33 W
Local well number: 45-65-23-132 Other number: TW-3
Local use: U.S. Geological Survey
Owner or name: U.S.G.S. Address: Houston
Ownership: County, Fed Gov't, City, Corp or Co, Private, State Agency, Water Dist. F
Use of Air cond, Bottling, Comm, Devater, Power, Fire, Dom, Irr, Med, Ind, P S, Rec, D
Water: Stock, Instat, Unused, Repressure, Recharge, Desal-P S, Desal-other, Other D
Use of well: Anoda, Drain, Seismic, Heat Res, Oil-gas, Recharge, Test, Unused, Withdraw, Waste, Destroyed D
DATA AVAILABLE: Well data 76 Freq. W/L meas.: 7 Field aquifer char. 75
Hyd. lab. data: 75
Qual. water data: type: Complete, minor elements 74
Freq. sampling: 1-74 Pumpage inventory: no period: 76
Aperture cards: 77
Log data: Drillers log 78

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD Depth well: 45 ft 45 Meas. 74
Depth cased: 35 ft 35 Casing type: 4 1/2 in. 25 lb 75
Finish: porous gravel w. horiz. open perf., screen, ed. pt., abraded, open hole, other 3
Method: (A) air bored, (B) cable, (C) dug, (D) hyd jacked, (E) air reverse, (F) trenching, (G) driven, (H) drive wash, (I) other 4
Date drilled: 1-16-74 9 7 4 Pump intake setting: 75
Driller: Birdwell Water Well Alvin Texas
Lift: (A) air, (B) bucket, (C) cent, (D) jet, (E) multiple, (F) multiple, (G) piston, (H) rot, (I) submers, (J) turb, other N Deep 75
Power: (type): diesel, elec, gas, gasoline, hand, gas, wind, H.L. none 75
Descrip. MP T.O.C. which is 1.7 above 75
Alt. LSD: 20 Accuracy: topo ± 5' 75
Water level: 18.83 above 17 Accuracy: topo 75
Date meas: 1-16-74 Yield: 75 Method determined: 75
Drawdown: 75 Accuracy: 75 Pumping period: 75
QUALITY OF WATER DATA: Iron: 030 Sulfate: 70 Chloride: 300 Hard: 640 75
Sp. Conduct: 1920 X x 10⁶ 75 Temp: 20C 75 Date sampled: 1-24-74 75
Taste, color, etc. 75

Well No.

Well No.

65-TP-132

Latitude-longitude

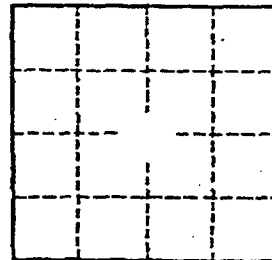
N

S

HYDROGEOLOGIC CARD

SAME AS ON MASTER CARD
 Physiographic Province: 03 Section: 03
 Drainage Basin: 51R Subbasin: 03
 (D) (C) (K) (P) (H) (X) (L)
 Topo of depression, stream channel, dunes, flat, hilltop, sink, swamp,
 well site: (Q) (P) (S) (T) (U) (V)
 offshore, pediment, hillside, terrace, undulating, valley flat E
 MAJOR
 AQUIFER: 03 Chicot C/D
 system series aquifer, formation, group
 Lithology: 03 Origin: 03 Aquifer Thickness: 03 ft
 Length of well open to: 10 ft Depth to top of: 35 ft
 MINOR
 AQUIFER: 03 03 03
 system series aquifer, formation, group
 Lithology: 03 Origin: 03 Aquifer Thickness: 03 ft
 Length of well open to: 03 ft Depth to top of: 03 ft
 Intervals Screened: 35-45
 Depth to consolidated rock: 03 ft Source of data: 03
 Depth to basement: 03 ft Source of data: 03
 Surficial material: 03 Infiltration characteristics: 03
 Coefficient Trans: 03 gpd/ft Coefficient Storage: 03
 Coefficient Perm: 03 gpd/ft² Spec cap: 03 gpd/ft; Number of geologic cards: 03

35' of 4" cemented in place
 10' of 2 1/2"
 10' of 2 1/2" plastic screen
 Total depth of well 45'



Well No.

LJ-65-23-132

ID	461
agency	USGS
site_no	
station_nm	LJ-65-23-132
latitude	29.7208
longitude	-95.2256
district	48
county	201
basin	
topo	F
construction date	19740116
site use 1	O
site use 2	
site use 3	
water use 1	U
water use 2	
water use 3	
nat water use	
aquifier	112CHCT
aqfr type	
well depth	45
hole depth	
depth src	

WED Exp. (GW)
April 1966

Well No

LJ-65-23-136

7

WELL SCHEDULE

U. S. DEPT. OF THE INTERIOR

GEOLOGICAL SURVEY

WATER RESOURCES DIVISION

MASTER CARD

Record by EDSEY GUYTON Source of data FILE Date 9-3-68 Map PASADENA 1955
State TEXAS County HARRIS LJ
Latitude: 29° 43' 26" N Longitude: 95° 13' 39" W Sequential number: 1
Local well number: LJ-65-23-136 Other number: 1141
Local use: _____
Owner or name: H. L. C. P. C. O. Address: HOUSTON LIGHTING & POWER CO. DEEP WATER PLT. HOUSTON, TEXAS
Ownership: County, Fed Gov't, City, Corp or Co, Private, State Agency, Water Dist N
Use of water: (A) Air cond, Bottling, Comm, Dewater, Power, Fire, Ind, Irr, Med, P S, Rec, Stock, Instit, Unused, Repressure, Recharge, Desal-P S, Desal-other, Other N
Use of well: (A) Anode, Drain, Seismic, Heat Res, Obs, Oil-gas, Recharge, Test, Unused, Withdraw, Waste, Destroyed W
DATA AVAILABLE: Well data Q Freq. W/L meas.: _____ Field aquifer char. Q
Hyd. Lab. data: _____
Qual. water data; type: _____
Freq. sampling: _____ Pumpage inventory: yes _____ no, period: _____
Aperture cards: _____
Log data: _____

WELL-DESCRIPTION CARD

SAME AS ON MASTER CARD Depth well: 809 ft 809 Meas. owner 6
Depth cased: 656 ft 656 Casing type: S ; Diam. 16-9/16 in 1.6
Finish: (C) porous concrete, (F) gravel w. concrete, (G) gravel w. (H) horiz. open perf., (I) screen, (J) gal. end, (K) other S
Method drilled: (A) air, (B) bored, (C) cable, (D) dug, (E) hyd, (F) jettied, (G) air, (H) reverse, (I) trenching, (J) driven, (K) wash, (L) other H
Date drilled: 1941 9/4/1 Pump intake setting: _____ ft _____
Driller: LAYNE-TEXAS CO. HOUSTON, TEXAS
Lift: (A) air, (B) bucket, (C) cent, (D) jet, (E) multiple, (F) multiple, (G) (H) (I) (J) (K) (L) (M) (N) (O) (P) (Q) (R) (S) (T) (U) (V) (W) (X) (Y) (Z) T Deep D
Power: (type) diesel, gas, gasoline, hand, gas, wind, E.P. 50 V Trans. of water no. _____
Descrip. MP _____ ft above LSD - Alt. MP _____
Alt. LSD: 17 17 Accuracy: TOPO 5 3
Water Level: 113 ft above MP; _____ ft below LSD 113 Accuracy: rept 6
Date meas: 2-41 2/4/1 Yield: 555 gpm 555 Method determined 41
Drawdown: 61 ft 61 Accuracy: REPT. W.D. 6 Pumping period _____ hrs _____
QUALITY OF WATER DATA: Iron _____ ppm Sulfate _____ ppm Chloride _____ ppm Hard. _____ ppm
Sp. Conduct _____ K x 10⁶ Temp. _____ °F Data sampled _____
Taste, color, etc. _____

Well No. LJ-65-23-136

Well No. LJ-65-23-136

Latitude-longitude 29.43.26° 95.13.39

HYDROGEOLOGIC CARD

1 SAME AS ON MASTER CARD 19 Physiographic Province: COASTAL PLAIN 20 21 Section: 03
22 Drainage Basin: F 23 Subbasin: SIR 24

Topo of well site: (D) (C) (X) (P) (H) (X) (L)
depression, stream channel, dunes, flat, hilltop, sink, swamp.
(S) (P) (X) (U) (V)
offshore, pediment, hillside, terrace, undulating, valley flat 27

MAJOR AQUIFER: system series T 28 29 aquifer, formation, group E 30 31
Lithology: 32 33 Origin: 34 Aquifer Thickness: 35 ft

Length of well open to: 68 ft 36 37 Depth to top of: 6 ft 38 39

MINOR AQUIFER: system series 40 41 aquifer, formation, group 42 43
Lithology: 44 45 Origin: 46 Aquifer Thickness: 47 ft

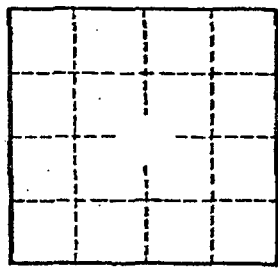
Length of well open to: 48 ft 49 50 Depth to top of: 51 ft 52 53

* Intervals Screened:
Depth to consolidated rock: 54 ft 55 56 Source of data: 57
Depth to basement: 58 ft 59 60 Source of data: 61
Surficial material: 62 63 Infiltration characteristics: 64
Coefficient Trans: 65 gpd/ft 66 67 Coefficient Storage: 68 69
Coefficient Perm: 70 gpd/ft² Spec cap: 71 gpm/ft: Number of geologic cards: 72

* 656-670'-14
698-730-32
762-768-06
789-805-14

491'-16" CSG.
318'-9 7/8" CSG.

W/L - 371 May-1971



Well No. LJ-65-23-136

LJ-65-23-136

ID	313
agency	USGS
site_no	
station_nm	LJ-65-23-136
latitude	29.7239
longitude	-95.2275
district	48
county	201
basin	
topo	
construction date	1941
site use 1	W
site use 2	
site use 3	
water use 1	N
water use 2	
water use 3	
nat water use	IN
aquifier	121EVGL
aqfr type	
well depth	809
hole depth	
depth src	

8

TEXAS WATER DEVELOPMENT BOARD
WELL SCHEDULE

Well Number - 65 23 137 Previous Well Number - County - Harris 201
River Basin - San Jacinto River - 10 Zone - 1 Latitude - 29 43 27 Longitude - 95 13 30 Source of Coords - 1

Owners Well No. Location 1/4, 1/4, Section Block Survey

Owner - Houston Light.&Power
Deepwater Plant

Driller - Souther Well Drlg.

Address Tenant/Oper.
Date Drilled - / /1923 Depth - 826 ft. Source of Depth - Altitude - 17 ft. Source of Alt. -
Aquifer - 121EVGL EVANGELINE AQUIFER Well Type - W User -
WELL Const. Casing
CONSTRUCTION Method - Material - Casing or Blank Pipe (C)
Screen Well Screen or Slotted Zone (
Completion - Material - Open Hole (O)
Cemented from to
LIFT DATA - Pump Mfr. Type - NONE No. Stages Diam. Setting(feet)
(in.) From To
Bowls Diam. - in. Setting - ft. Column Diam. - in.
Motor Mfr. - Fuel or Power - Horsepower -
YIELD Flow- GPM Pump- GPM Meas., Rept., Est- Date-
PERFORMANCE TEST Date- Length of Test- Production- GPM
Level- ft. Pumping Level- ft. Drawdown- ft. Sp.Cap.- GPM/ft
QUALITY (Remarks-
WATER USE Primary- UNUSED Secondary- Tertiary-
OTHER DATA AVAILABLE Water Levels- M Quality- Y Logs- Other Data-
WATER LEVELS Date- 11/04/1936 Measurement- -58.00
Date- 12/11/1941 Measurement- -120.00
Recorded By Date Record Collected or Updated- / /

Reporting Agency -

REMARKS -

121 ft of screen between 630 and
805 ft. Well destroyed. Well 1.

Aquifer - 121EVGL
Well No. - 65 23 137

9

TEXAS WATER DEVELOPMENT BOARD
WELL SCHEDULE

Well Number - 65 23 138 Previous Well Number - County - Harris 201
Basin - San Jacinto River - 10 Zone - 1 Latitude - 29 43 25 Longitude - 95 13 33 Source of Coords - 1

Owners Well No. Location 1/4, 1/4, Section, Block, Survey

Owner - Houston Light & Power
Deepwater Plant
Driller - Layne Texas

Address Tenant/Oper.

Date Drilled - / /1924 Depth - 823 ft. Source of Depth - Altitude - 18 ft. Source of Alt. -
Aquifer - 121EVGL EVANGELINE AQUIFER Well Type - W User -

WELL Const. Casing
CONSTRUCTION Method - Material - Casing or Blank Pipe (C)
Screen Well Screen or Slotted Zone (C)
Completion - Material - Open Hole (O)
Cemented from to
LIFT DATA - Pump Mfr. Type - NONE No. Stages Diam. Setting(feet)
(in.) From To

Bowls Diam. - in. Setting - ft. Column Diam. - in.

Motor Mfr. - Fuel or Power - Horsepower -

YIELD Flow- GPM Pump- GPM Meas., Rept., Est- Date-

PERFORMANCE TEST Date- Length of Test- Production- GPM

Level- ft. Pumping Level- ft. Drawdown- ft. Sp.Cap.- GPM/ft

QUALITY (Remarks-)

WATER USE Primary- UNUSED Secondary- Tertiary-

OTHER DATA AVAILABLE Water Levels- N Quality- Y Logs- Other Data-

WATER LEVELS Date- / / Measurement-
Date- / / Measurement-

Recorded By Date Record Collected or Updated- / /

Reporting Agency -
REMARKS -
119 ft of screen between 624 and
805 ft. Reported yield 500 gpm in
1937. Well destroyed. Well 2.

Aquifer - 121EVGL
Well No. - 65 23 138

10

TEXAS WATER DEVELOPMENT BOARD
WELL SCHEDULE

Well Number - 65 23 122 Previous Well Number - County - Harris 201
River Basin - San Jacinto River - 10 Zone - 1 Latitude - 29 43 09 Longitude - 95 12 53 Source of Coords - 1

Owners Well No. Location 1/4, 1/4, Section Block Survey

Owner - Champion Papers

Driller - Layne Texas

Address Tenant/Oper.

Date Drilled - / /1937 Depth - 974 ft. Source of Depth - Altitude - 31 ft. Source of Alt. -

Aquifer - 121EVGL EVANGELINE AQUIFER

Well Type - W User -

WELL Const. Casing

CONSTRUCTION Method - Material -

Completion - Material -

Casing or Blank Pipe (C)

Well Screen or Slotted Zone (

Open Hole (O)

Cemented from to

Diam. Setting(feet)

(in.) From To

LIFT DATA - Pump Mfr. Type - TURBINE PUMP No. Stages

Bowls Diam. - in. Setting - ft. Column Diam. - in.

Motor Mfr. - Fuel or Power - ELECTRIC MOTOR Horsepower - 150

YIELD Flow- GPM Pump- GPM Meas., Rept., Est- Date-

PERFORMANCE TEST Date- Length of Test- Production- GPM

Level- ft. Pumping Level- ft. Drawdown- ft. Sp.Cap.- GPM/ft

QUALITY (Remarks-

WATER USE Primary- INDUSTRIAL Secondary- Tertiary-

OTHER DATA AVAILABLE Water Levels- M Quality- Y Logs- Other Data- A

WATER LEVELS Date- 01/26/1937 Measurement- -63.00

Date- / / Measurement-

Recorded By Date Record Collected or Updated- / /

Reporting Agency -

REMARKS -

219 ft of screen between 642 and
970 ft. Reported yield 1730 gpm
with 72 ft drawdown when drilled.
test hole drilled to 978 ft.
Well A-1. Aquifer test data in
TWDB R-98.

Aquifer - 121EVGL
Well No. - 65 23 122

11

TEXAS WATER DEVELOPMENT BOARD
WELL SCHEDULE

Well Number - 65 23 123 Previous Well Number - County - Harris 201
River Basin - San Jacinto River - 10 Zone - 1 Latitude - 29 43 06 Longitude - 95 12 53 Source of Coords - 1

Owners Well No. Location 1/4. 1/4. Section Block Survey

Owner - Champion Papers

Driller - Layne Texas

Address Tenant/Oper.

Date Drilled - / /1937 Depth - 1,275 ft. Source of Depth - Altitude - 29 ft. Source of Alt. -

Aquifer - 121EVGL EVANGELINE AQUIFER

Well Type - W User -

WELL Const. Casing
CONSTRUCTION Method - Material - Casing or Blank Pipe (C)
Screen
Completion - Material - Well Screen or Slotted Zone (C)
Open Hole (O)
Cemented from to

LIFT DATA - Pump Mfr. Type - TURBINE PUMP No. Stages
Bowls Diam. - in. Setting - ft. Column Diam. - in.
Diam. Setting(feet)
(in.) From To

Motor Mfr. - Fuel or Power - ELECTRIC MOTOR Horsepower - 250

YIELD Flow- GPM Pump- GPM Meas., Rept., Est- Date-

PERFORMANCE TEST Date- Length of Test- Production- GPM

Level- ft. Pumping Level- ft. Drawdown- ft. Sp.Cap.- GPM/ft

QUALITY (Remarks-

WATER USE Primary- INDUSTRIAL Secondary- Tertiary-

OTHER DATA AVAILABLE Water Levels- M Quality- Y Logs- Other Data-

WATER LEVELS Date- 01/18/1937 Measurement- -56.00

Date- / / Measurement-

Recorded By Date Record Collected or Updated- / /

Reporting Agency -

REMARKS -

217 ft of screen between 998 and
1251 ft. Reported yield 2870 gpm
with 116 ft drawdown when drilled.
Test hole drilled to 1317 ft.
Well A-2.

Aquifer - 121EVGL
Well No. - 65 23 123

12

TEXAS WATER DEVELOPMENT BOARD
WELL SCHEDULE

Well Number - 65 23 120 Previous Well Number - County - Harris 201
Basin - San Jacinto-Brazos Rivers - 11 Zone - 1 Latitude - 29 42 47 Longitude - 95 13 19 Source of Coords - 2

Owners Well No. Location 1/4, 1/4, Section, Block, Survey

Owner - City of Pasadena Driller - McMasters & Pomeroy
#2

Address Tenant/Oper.

Date Drilled - / /1935 Depth - 834 ft. Source of Depth - D Altitude - 27 ft. Source of Alt. - M
Aquifer - 121EVGL EVANGELINE AQUIFER. Well Type - W User - 651900

WELL Const. Casing
CONSTRUCTION Method - Material - Casing or Blank Pipe (C)
Screen Well Screen or Slotted Zone (
Completion - Material - Open Hole (O)
Cemented from to
LIFT DATA - Pump Mfr. Type - NONE No. Stages Diam. Setting(feet)
(in.) From To

Bowls Diam. - in. Setting - ft. Column Diam. - in.
Motor Mfr. - Fuel or Power - Horsepower -

YIELD Flow- GPM Pump- GPM Meas., Rept., Est- Date-

PERFORMANCE TEST Date- Length of Test- Production- GPM

Static Level- ft. Pumping Level- ft. Drawdown- ft. Sp.Cap.- GPM/ft

QUALITY (Remarks-

WATER USE Primary- UNUSED Secondary- Tertiary-

OTHER DATA AVAILABLE Water Levels- M Quality- N Logs- Other Data-

WATER LEVELS Date- 08/19/1937 Measurement- -109.80
Date- 03/15/1941 Measurement- -125.50

Recorded By Date Record Collected or Updated- / /

Reporting Agency - UNITED STATES GEOLOGICAL SURVEY
REMARKS -

Aquifer - 121EVGL
Well No. - 65 23 120

13

TEXAS WATER DEVELOPMENT BOARD
WELL SCHEDULE

Well Number - 65 23 124 Previous Well Number - County - Harris 201
Basin - San Jacinto River - 10 Zone - 1 Latitude - 29 43 06 Longitude - 95 12 52 Source of Coords - 1

Owners Well No. Location 1/4, 1/4, Section, Block, Survey

Owner - Champion Papers

Driller - Layne Texas

Address Tenant/Oper.

Date Drilled - / /1937 Depth - 1.937 ft. Source of Depth - Altitude - 28 ft. Source of Alt. -

Aquifer - 121EVGL EVANGELINE AQUIFER

Well Type - W User -

WELL Const. Casing
CONSTRUCTION Method - Material - Casing or Blank Pipe (C)
Screen Well Screen or Slotted Zone (
Completion - Material - Open Hole (O)
Cemented from to
LIFT DATA - Pump Mfr. Type - TURBINE PUMP No. Stages Diam. Setting(feet)
(in.) From To

Bowls Diam. - in. Setting - ft. Column Diam. - in.

Motor Mfr. - Fuel or Power - ELECTRIC MOTOR Horsepower - 250

YIELD Flow- GPM Pump- GPM Meas., Rept., Est- Date-

PERFORMANCE TEST Date- Length of Test- Production- GPM

Level- ft. Pumping Level- ft. Drawdown- ft. Sp.Cap.- GPM/ft

QUALITY (Remarks-

WATER USE Primary- INDUSTRIAL Secondary- Tertiary-

OTHER DATA AVAILAIBLE Water Levels- M Quality- Y Logs- Other Data- AC

WATER LEVELS Date- 01/17/1937 Measurement- -42.00

Date- / / Measurement-

Recorded By Date Record Collected or Updated- / /

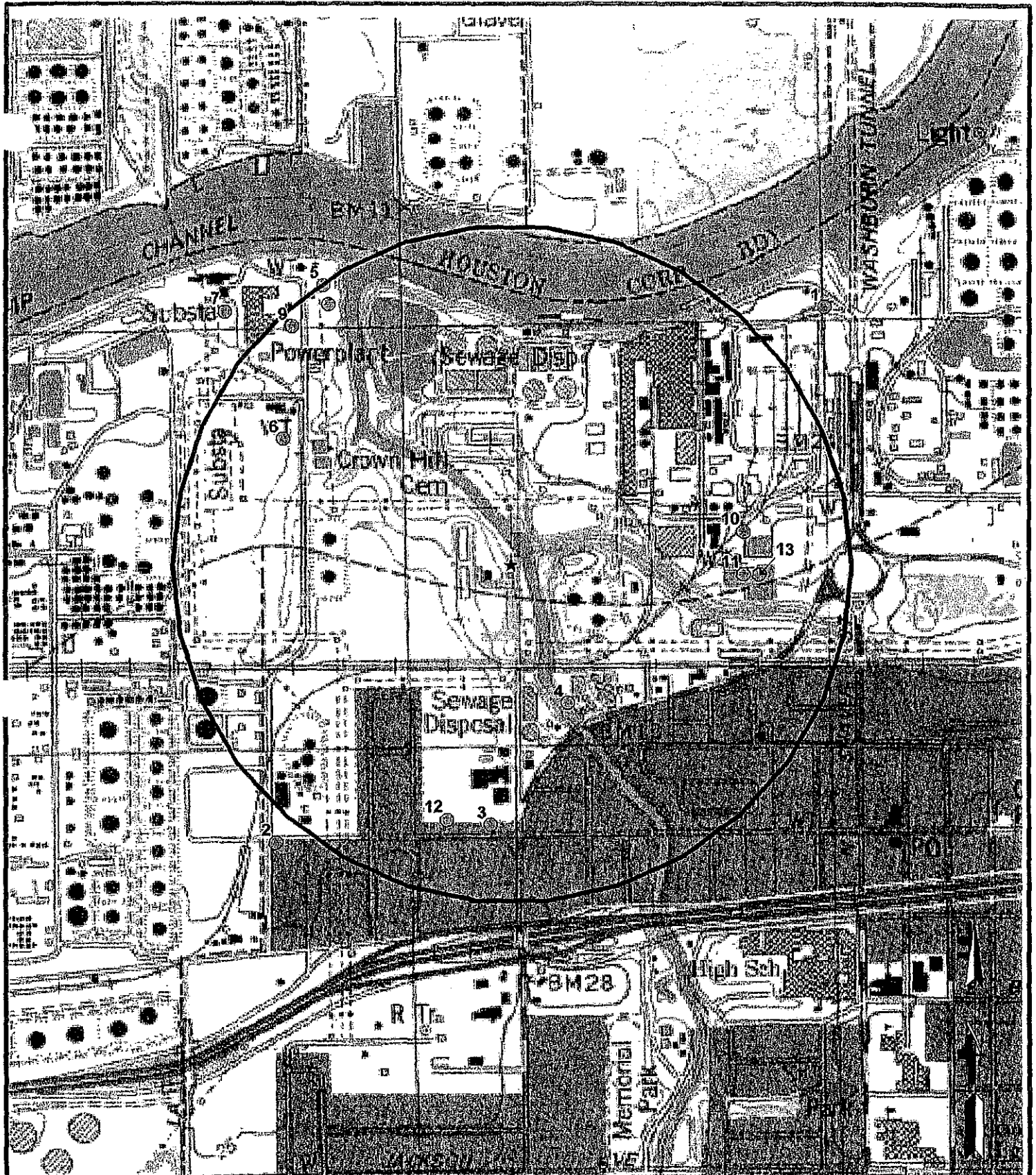
Reporting Agency -

REMARKS -

363 ft of screen between 1393 and
1933 ft. Reported yield 3030 gpm
with 119 ft drawdown when drilled.
Test hole drilled to 1939 ft.
Well A-3. Aquifer test data in
TWDB R-98.

Aquifer - 121EVGL
Well No. - 65 23 124

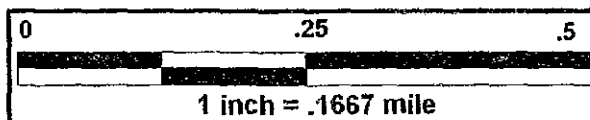
Attachment 3B Water Well Map



★ Site

● Mapped Water Well

Site Locations are Approximate Only



TeiALLTM
Corporation

18003583-0004 WWW.TEIALL.NET

Worksheet 3.3 Ecological Tier 1 Exclusion Criteria Checklist

ATTACHMENT 1: TIER 1 EXCLUSION CRITERIA CHECKLIST

Figure : 30 TAC §350.77(b)

TIER 1: Exclusion Criteria Checklist

This exclusion criteria checklist is intended to aid the person and the TNRCC in determining whether or not further ecological evaluation is necessary at an affected property where a response action is being pursued under the Texas Risk Reduction Program (TRRP). Exclusion criteria refer to those conditions at an affected property which preclude the need for a formal ecological risk assessment (ERA) because there are incomplete or insignificant ecological exposure pathways due to the nature of the affected property setting and/or the condition of the affected property media. This checklist (and/or a Tier 2 or 3 ERA or the equivalent) must be completed by the person for all affected property subject to the TRRP. The person should be familiar with the affected property but need not be a professional scientist in order to respond, although some questions will likely require contacting a wildlife management agency (i.e., Texas Parks and Wildlife Department or U.S. Fish and Wildlife Service). The checklist is designed for general applicability to all affected property; however, there may be unusual circumstances which require professional judgement in order to determine the need for further ecological evaluation (e.g., cave-dwelling receptors). In these cases, the person is strongly encouraged to contact TNRCC before proceeding.

Besides some preliminary information, the checklist consists of three major parts, each of which must be completed unless otherwise instructed. PART I requests affected property identification and background information. PART II contains the actual exclusion criteria and supportive information. PART III is a qualitative summary statement and a certification of the information provided by the person. Answers should reflect existing conditions and should not consider future remedial actions at the affected property. Completion of the checklist should lead to a logical conclusion as to whether further evaluation is warranted. Definitions of terms used in the checklist have been provided and users are strongly encouraged to familiarize themselves with these definitions before beginning the checklist.

Name of Facility: *COMMERCIAL/INDUSTRIAL SITE*

Affected Property Location: *400 NORTH RICHEY STREET
PASADENA, TEXAS*

Mailing Address: *C/O MR. DECKER MCKIM
6019 FAIRMONT PARKWAY, SUITE B
PASADENA, TEXAS 77505*

TNRCC Case Tracking #s: *SWR 52123*

Solid Waste Registration #s:

Voluntary Cleanup Program #:

EPA ID. #s:

ATT1-1

Definitions¹¹

Affected property - The entire area (i.e., on-site and off-site; including all environmental media) which contains releases of chemicals of concern at concentrations equal to or greater than the assessment level applicable for the residential land use and groundwater classification.

Assessment level - A critical protective concentration level for a chemical of concern used for affected property assessments where the human health protective concentration level is established under a Tier 1 evaluation as described in §350.75(b) of this title (relating to Tiered Human Health PCL Evaluation), except for the protective concentration level for the soil-to-groundwater exposure pathway which may be established under Tier 1, 2, or 3 as described in §350.75(d)(7) of this title, and ecological protective concentration levels are developed, when necessary, under Tier 2 and/or 3 in accordance with §350.77(c) and/or (d), respectively of this title (relating to Ecological Risk Assessment and Development of Ecological PCLs).

Bedrock - The solid rock (i.e., consolidated, coherent, and relatively hard naturally formed material that cannot normally be excavated by manual methods alone) that underlies gravel, soil or other surficial material

Chemicals of concern - Any chemical that has the potential to adversely affect ecological or human receptors due to its concentration, distribution, and mode of toxicity. Depending on the program area, chemicals of concern may include the following: solid waste, industrial solid waste, municipal solid waste, and hazardous waste as defined in Texas Health and Safety Code, §361.003, as amended; hazardous constituents as listed in 40 Code of Federal Regulations Part 261, Appendix VIII, as amended; constituents on the groundwater monitoring list in 40 Code of Federal Regulations Part 264, Appendix IX, as amended; constituents as listed in 40 CFR Part 258 Appendices I and II, as amended; pollutant as defined in Texas Water Code, §26.001, as amended; hazardous substances as defined in Texas Health and Safety Code, §361.003, as amended, and the Texas Water Code §26.263, as amended; regulated substance as defined in Texas Water Code §26.342, as amended and §334.2 of this title (relating to Definitions), as amended; petroleum product as defined in Texas Water Code §26.342, as amended and §334.122(b)(12) of this title (relating to Definitions for ASTs), as amended; other substances as defined in Texas Water Code §26.039(a), as amended; and daughter products of the aforementioned constituents.

Community - An assemblage of plant and animal populations occupying the same habitat in which the various species interact via spatial and trophic relationships (e.g., a desert community or a pond community).

Complete exposure pathway - An exposure pathway where a human or ecological receptor is exposed to a chemical of concern via an exposure route (e.g., incidental soil ingestion, inhalation of volatiles and particulates, consumption of prey, etc).

De minimus - The description of an area of affected property comprised of one acre or less where the ecological risk is considered to be insignificant because of the small extent of contamination, the absence of protected species, the availability of similar unimpacted habitat nearby, and the lack of adjacent sensitive environmental areas.

Ecological protective concentration level - The concentration of a chemical of concern at the point of exposure within an exposure medium (e.g., soil, sediment, groundwater, or surface water) which is determined in accordance with §350.77(e) or (d) of this title (relating to Ecological Risk Assessment and Development of Ecological Protective Concentration Levels) to be protective for ecological receptors. These concentration levels are primarily intended to be protective for more mobile or wide-ranging ecological receptors and, where appropriate, benthic invertebrate communities within the waters in the state. These concentration levels are not intended to be directly protective of receptors with limited mobility or range (e.g., plants, soil invertebrates, and small rodents), particularly those residing within active areas of a facility, unless these receptors are threatened/endangered species or unless impacts to these receptors result in disruption of the ecosystem or other unacceptable consequences for the more mobile or wide-ranging receptors (e.g., impacts to an off-site grassland habitat eliminate rodents which causes a desirable owl population to leave the area).

¹¹These definitions were taken from 30 TAC §350.4 and may have both ecological and human health applications. For the purposes of this checklist, it is understood that only the ecological applications are of concern.

Ecological risk assessment - The process that evaluates the likelihood that adverse ecological effects may occur or are occurring as a result of exposure to one or more stressors; however, as used in this context, only chemical stressors (i.e., COCs) are evaluated.

Environmental medium - A material found in the natural environment such as soil (including non-waste fill materials), groundwater, air, surface water, and sediments, or a mixture of such materials with liquids, sludges, gases, or solids, including hazardous waste which is inseparable by simple mechanical removal processes, and is made up primarily of natural environmental material.

Exclusion criteria - Those conditions at an affected property which preclude the need to establish a protective concentration level for an ecological exposure pathway because the exposure pathway between the chemical of concern and the ecological receptors is not complete or is insignificant.

Exposure medium - The environmental medium or biologic tissue in which or by which exposure to chemicals of concern by ecological or human receptors occurs.

Facility - The installation associated with the affected property where the release of chemicals of concern occurred.

Functioning cap - A low permeability layer or other approved cover meeting its design specifications to minimize water infiltration and chemical of concern migration, and prevent ecological or human receptor exposure to chemicals of concern, and whose design requirements are routinely maintained.

Landscaped area - An area of ornamental, or introduced, or commercially installed, or manicured vegetation which is routinely maintained.

Off-site property (off-site) - All environmental media which is outside of the legal boundaries of the on-site property.

On-site property (on-site) - All environmental media within the legal boundaries of a property owned or leased by a person who has filed a self-implementation notice or a response action plan for that property or who has become subject to such action through one of the agency's program areas for that property.

Physical barrier - Any structure or system, natural or manmade, that prevents exposure or prevents migration of chemicals of concern to the points of exposure.

Point of exposure - The location within an environmental medium where a receptor will be assumed to have a reasonable potential to come into contact with chemicals of concern. The point of exposure may be a discrete point, plane, or an area within or beyond some location.

Protective concentration level - The concentration of a chemical of concern which can remain within the source medium and not result in levels which exceed the applicable human health risk-based exposure limit considering cumulative risk and hazard index for both carcinogenic and non-carcinogenic effects respectively, or ecological protective concentration level at the point of exposure for that exposure pathway.

Release - Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment, with the exception of:

(A) A release that results in an exposure to a person solely within a workplace, concerning a claim that the person may assert against the person's employer;

(B) An emission from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine;

(C) A release of source, by-product, or special nuclear material from a nuclear incident, as those terms are defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. §2011 et seq.), if the release is subject to requirements concerning financial protection established by the Nuclear Regulatory Commission under §170 of that Act;

(D) For the purposes of the environmental response law §104, as amended, or other response action, a release of source, by-product, or special nuclear material from a processing site designated under §102(a)(1) or §302(a) of the Uranium Mill Tailings Radiation Control Act of 1978 (42 U.S.C. §7912 and §7942), as amended; and

(E) The normal application of fertilizer.

Sediment - Non-suspended particulate material lying below surface waters such as bays, the ocean, rivers, streams, lakes, ponds, or other similar surface water body (including intermittent streams). Dredged sediments which have been removed from surface water bodies and placed on land shall be considered soils.

Sensitive environmental areas - Areas that provide unique and often protected habitat for wildlife species. These areas are typically used during critical life stages such as breeding, hatching, rearing of young, and overwintering. Examples include critical habitat for threatened and endangered species, wilderness areas, parks, and wildlife refuges.

Source medium - An environmental medium containing chemicals of concern which must be removed, decontaminated and/or controlled in order to protect human health and the environment. The source medium may be the exposure medium for some exposure pathways.

Stressor - Any physical, chemical, or biological entity that can induce an adverse response; however, as used in this context, only chemical entities apply.

Subsurface soil - For human health exposure pathways, the portion of the soil zone between the base of surface soil and the top of the groundwater-bearing unit(s). For ecological exposure pathways, the portion of the soil zone between 0.5 feet and 5 feet in depth.

Surface cover - A layer of artificially placed utility material (e.g., shell, gravel).

Surface soil - For human health exposure pathways, the soil zone extending from ground surface to 15 feet in depth for residential land use and from ground surface to 5 feet in depth for commercial/industrial land use; or to the top of the uppermost groundwater-bearing unit or bedrock, whichever is less in depth. For ecological exposure pathways, the soil zone extending from ground surface to 0.5 feet in depth.

Surface water - Any water meeting the definition of surface water in the state as defined in §307.3 of this title (relating to Abbreviations and Definitions), as amended.

PART I. Affected Property Identification and Background Information

- 1) Provide a description of the specific area of the response action and the nature of the release. Include estimated acreage of the affected property and the facility property, and a description of the type of facility and/or operation associated with the affected property. Also describe the location of the affected property with respect to the facility property boundaries and public roadways.

THE 12.2 ACRE SITE FORMERLY HOUSED A LEATHER TANNING FACILITY FROM 1960'S THROUGH MID 1985. ARSENIC WAS USED IN THE TANNING PROCESS. APPROX. 5 ACRES OF SITE WAS CLEANED IN APPROX 1990 AND THE ARSENIC CONTAINING MATERIAL WAS PLACED INTO AN ON-SITE PIT AND MIXED WITH LIME TO RENDER IT INSOLUBLE IN WATER. THE SITE WAS DEED RECORDED,

Attach available USGS topographic maps and/or aerial or other affected property photographs to this form to depict the affected property and surrounding area. Indicate attachments:

☒ Topo map

☐ Aerial photo

☐ Other

- 2) Identify environmental media known or suspected to contain chemicals of concern (COCs) at the present time. Check all that apply:

Known/Suspected COC Location	Based on sampling data?	
<input type="checkbox"/> Soil \leq 5 ft below ground surface	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<input type="checkbox"/> Soil $>$ 5 ft below ground surface	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<input type="checkbox"/> Groundwater	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<input type="checkbox"/> Surface Water/Sediments	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Explain (previously submitted information may be referenced):

THE SITE HAS BEEN CLEANED TO BELOW TNRCC TIER 1 PCL FOR ARSENIC IN SOIL. THE GROUNDWATER IS ALSO BELOW PCL.

ATT1-5

- 3) Provide the information below for the nearest surface water body which has become or has the potential to become impacted from migrating COCs via surface water runoff, air deposition, groundwater seepage, etc. Exclude wastewater treatment facilities and stormwater conveyances/impoundments authorized by permit. Also exclude conveyances, decorative ponds, and those portions of process facilities which are:

- a. Not in contact with surface waters in the State or other surface waters which are ultimately in contact with surface waters in the State; and
- b. Not consistently or routinely utilized as valuable habitat for natural communities including birds, mammals, reptiles, etc.

The nearest surface water body is 40 (feet) miles from the affected property and is named VINCE BAYOU. The water body is best described as a:

- ☐ freshwater stream: perennial (has water all year)
 intermittent (dries up completely for at least 1 week a year)
 intermittent with perennial pools
- ☐ freshwater swamp/marsh/wetland
- ☐ saltwater or brackish marsh/swamp/wetland
- ☐ reservoir, lake, or pond; approximate surface acres:
- ☐ drainage ditch
- ☒ tidal stream ☐ bay ☒ estuary
- ☐ other; specify

Is the water body listed as a State classified segment in Appendix C of the current Texas Surface Water Quality Standards; §§307.1 - 307.10?

☒ Yes Segment # 1007 Use Classification: SHIPPING
HOUSTON SHIP CHANNEL / BUFFALO BAYOU TIDAL

☐ No

If the water body is not a State classified segment, identify the first downstream classified segment.

Name:

Segment #:

Use Classification:

As necessary, provide further description of surface waters in the vicinity of the affected property:

ATT1-6

PART II. Exclusion Criteria and Supportive Information

Subpart A. Surface Water/Sediment Exposure

- 1) Regarding the affected property where a response action is being pursued under the TRRP, have COCs migrated and resulted in a release or imminent threat of release to either surface waters or to their associated sediments via surface water runoff, air deposition, groundwater seepage, etc.? Exclude wastewater treatment facilities and stormwater conveyances/impoundments authorized by permit. Also exclude conveyances, decorative ponds, and those portions of process facilities which are:
- a. Not in contact with surface waters in the State or other surface waters which are ultimately in contact with surface waters in the State; and
 - b. Not consistently or routinely utilized as valuable habitat for natural communities including birds, mammals, reptiles, etc.

☐ Yes

☒ No

Explain:

SITE HAS BEEN CLEANED TO BELOW TIER 1 PCL FOR ARSENIC.

If the answer is Yes to Subpart A above, the affected property does not meet the exclusion criteria. However, complete the remainder of Part II to determine if there is a complete and/or significant soil exposure pathway, then complete PART III - Qualitative Summary and Certification. If the answer is No, go to Subpart B.

Subpart B. Affected Property Setting

In answering "Yes" to the following question, it is understood that the affected property is not attractive to wildlife or livestock, including threatened or endangered species (i.e., the affected property does not serve as valuable habitat, foraging area, or refuge for ecological communities). (May require consultation with wildlife management agencies.)

- 1) Is the affected property wholly contained within contiguous land characterized by: pavement, buildings, landscaped area, functioning cap, roadways, equipment storage area, manufacturing or process area, other surface cover or structure, or otherwise disturbed ground?

☒ Yes

☐ No

Explain:

If the answer to Subpart B above is Yes, the affected property meets the exclusion criteria, assuming the answer to Subpart A was No. Skip Subparts C and D and complete PART III - Qualitative Summary and Certification. If the answer to Subpart B above is No, go to Subpart C.

ATT1-7

Subpart C. Soil Exposure

- 1) Are COCs which are in the soil of the affected property solely below the first 5 feet beneath ground surface or does the affected property have a physical barrier present to prevent exposure of receptors to COCs in surface soil?

☐ Yes

☐ No

Explain:

If the answer to Subpart C above is Yes, the affected property meets the exclusion criteria, assuming the answer to Subpart A was No. Skip Subpart D and complete PART III - Qualitative Summary and Certification. If the answer to Subpart C above is No, proceed to Subpart D.

Subpart D. *De Minimis* Land Area

In answering "Yes" to the question below, it is understood that all of the following conditions apply:

- ❖ The affected property is not known to serve as habitat, foraging area, or refuge to threatened/endangered or otherwise protected species. (Will likely require consultation with wildlife management agencies.)
- ❖ Similar but unimpacted habitat exists within a half-mile radius.
- ❖ The affected property is not known to be located within one-quarter mile of sensitive environmental areas (e.g., rookeries, wildlife management areas, preserves). (Will likely require consultation with wildlife management agencies.)
- ❖ There is no reason to suspect that the COCs associated with the affected property will migrate such that the affected property will become larger than one acre.

- 1) Using human health protective concentration levels as a basis to determine the extent of the COCs, does the affected property consist of one acre or less and does it meet all of the conditions above?

☐ Yes

☐ No

Explain how conditions are met/not met:

If the answer to Subpart D above is Yes, then no further ecological evaluation is needed at this affected property, assuming the answer to Subpart A was No. Complete PART III - Qualitative Summary and Certification. If the answer to Subpart D above is No, proceed to Tier 2 or 3 or comparable ERA.

PART III. Qualitative Summary and Certification (Complete in all cases.)

Attach a brief statement (not to exceed 1 page) summarizing the information you have provided in this form. This summary should include sufficient information to verify that the affected property meets or does not meet the exclusion criteria. The person should make the initial decision regarding the need for further ecological evaluation (i.e., Tier 2 or 3) based upon the results of this checklist. After review, TNRCC will make a final determination on the need for further assessment. Note that the person has the continuing obligation to re-enter the ERA process if changing circumstances result in the affected property not meeting the Tier 1 exclusion criteria.

SEE ATTACHED AFFECTED PROPERTY
ASSESSMENT REPORT

Completed by: WAYNE J. CROUCH (Typed/Printed Name)

CONSULTANT (Title)

5-16-2002 (Date)

I believe that the information submitted is true, accurate, and complete, to the best of my knowledge.

Decker McKim (Typed/Printed Name of Person)

BROKER (Title of Person)

[Signature] (Signature of Person)

5.17.02 (Date Signed)

Attachment 3C Ecological Tier 1 Exclusion Criteria Checklist
Attachments

The subject site has been cleaned to below Tier 1 PCL for arsenic. The groundwater is below the Tier 1 PCL.

Arsenic containing materials were placed into an on-site pit and mixed with lime to render it insoluble in water.

SECTION 4 EXPOSURE PATHWAYS AND COC INFORMATION

Initial exposure pathways were inhalation and dermal contact since the facility had been a leather tanning facility that utilized arsenic in the process.

Today there are no exposure pathways because the site has been cleaned to meet TNRCC Tier 1 PCL for arsenic.

SECTION 5 SOIL ASSESSMENT

Worksheet 5.0 Soil Assessment

Soil sampling on the subject found the following:

- Soil arsenic concentrations were all below the Tier 1 PCL limit for commercial/industrial property with a source greater than 0.5 acres.

Attachment 5A Soil Data Summary Table

The subject property is a commercial/industrial site that is being evaluated for the presence of arsenic. The source is greater than 0.5 acres. The samples were collected June 24, 2001. PCL at this site is 200.0 mg/kg.

↳ Tot Soil Cond

Boring No.	Depth of Sample	Concentration (mg/kg)
1	0-2'	4.775
	8-10'	1.425
	12'	<1.25
2	0-2'	<1.25
	8-10'	<1.25
	12'	2.225
3	0-2'	2.125
	8-10'	<1.25
	12'	<1.25
4	0-2'	<1.25
	8-10'	<1.25
	12'	<1.25
5	0-2'	16.45
	8-10'	<1.25
	12'	<1.25
6	0-2'	21.55
	8-10'	<1.25
	12'	2.825
7	0-2'	119.5
	8-10'	<1.25
	10'	<1.25
8	0-2'	<1.25
	8-10'	<1.25
	22'	<1.25
9	0-2'	2.225
	8-10'	24.25
	11'	1.25
10	8-10'	<1.25
	0-2'	0.75
	8-10'	2.625
11	20'	129.75

12	0-2'	176.5
	8-10'	1.15
	20'	9.075
13	0-2'	1.275
	8-10'	127.75
	16-18'	0.375
14	0-2'	5.7
	8-10'	218.75
15	0-2'	3.7
	8-10'	3.35
	16'	3.0
16	0-2'	2.15
	8-10'	0.25
	12-14'	0.975
17	0-2'	0.85
	8-10'	<1.25
18	0-2'	0.325
	8-10'	1.25
19	0-2'	38.25
20	0-2'	2.205
21	0-2'	0.45
22	0-2'	0.8
23	0-2'	2.25
24	0-2'	9.175
25	0-2'	0.675



APPENDICES

Appendix 5 Laboratory Data Packages

EFEH & ASSOCIATES

LAB NO.	M-3766-1, 2, 3	M-3766-4, 5, 6	M-3766-7, 8, 9	M-3766- 10, 11, 12	M-3766- 13, 14, 15	M-3766- 16, 17, 18	M-3766- 19, 20, 21	M-3788-1, 2, 4
SITE	Borehole 1	Borehole 2	Borehole 3	Borehole 4	Borehole 5	Borehole 6	Borehole 7	Borehole 8
0-2'	4.775	<1.250	2.125	<1.250	16.450	21.550	119.5	<1.250
8-10'	1.425	<1.250	<1.250	<1.250	<1.250	<1.250	<1.250	<1.250
Water level 10'							<1.250	
12'	<1.250	2.225	<1.250	<1.250	<1.250	2.825		
15'								
17'								
22'								<1.250
Water @ Water level	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTE: Arsenic values are mg/Kg - Soil mg/L - Water

EFEH & ASSOCIATES

LAB NO.	M-3877-1, 2, 3	M-3877-4, 5, 6	M-3877-7, 8, 9	M-3877- 10, 11, 12	M-3877- 16, 17	M-3877- 20, 21, 22	M-3877- 23, 24, 26	M-3877- 27, 28, 30
SITE	Borehole 9	Borehole 10	Borehole 11	Borehole 12	Borehole 13	Borehole 14	Borehole 15	Borehole 16
0-2'	2.225		0.750	176.50	1.275	5.700	3.700	2.150
8-10'	24.250	<0.125	2.625	1.150	127.75	218.75	3.350	0.250
Water level 10'								
11'	1.250							
12-14'								0.975
16'							3.000	
16-18'					0.375			
20'			129.75	9.075				
22'								
Water @ Water level	<0.005	<0.005	<0.005	<0.005	<0.005	1.0001	1.0801	<0.005

NOTE: Arsenic values are mg/Kg - Soil mg/L - Water

disposal
pit

1 Visibly hazy from 1-10 microns silt particles to which arsenic may be attached.

Refiltered with CMC 0.43 micron filter, reanalyzed, and found less than 0.05 mg/L Arsenic.

does this mean
was filtered through 10µm
filter

EFEH & ASSOCIATES

LAB NO.	M-3877- 31, 32	M-3877- 34, 35	M-3877- 37	M-3877- 39, 45	M-3877- 40, 46	M-3877- 41, 47	M-3877- 42, 48	M-3877- 43, 49	M-3877- 44, 50
SITE	Borehole 17	Borehole 18	Borehole 19	Borehole 20	Borehole 21	Borehole 22	Borehole 23	Borehole 24	Borehole 25
0-2'	0.850	0.325	38.250	2.205	0.450	0.800	2.250	9.175	0.675
8-10'	<0.125	1.250							
Water @ Water level	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTE: Arsenic values are mg/Kg - Soil mg/L - Water



CHAIN OF CUSTODY

EFEH & ASSOCIATES
CANNOT ACCEPT VERBAL
ORDERS OR CHANGES.
PLEASE FAX CHANGES
TO (281) 996-5550
ATTENTION:
SAMPLE RECEIVING

Please Print. There are 10 items to fill in.

① Company: <u>Decker-McKim</u>				Matrix				⑤ Analyses Requested											
Address: _____ Zip: _____				④															
Site: _____ P.O. #: _____																			
Sampler: <u>J. SASSEEN</u>																			
② Sample Identification		Date Collected	Time Collected	③ Grab	Composite	Number of Containers	Container Size	Container Material	Matrix	⑥									
#1.0 4'-6'		4/2/02	09:00	X		1		S	X	m 61 25-1 ON ICE									
8'-10'			09:25							11 - 2									
12'-14'			09:40							11 - 3									
16'-18'			09:50							11 - 4									
20-22			10:05							11 - 5									
#2.0 0'-2'			14:30							11 - 6									
4'-6'			14:45							11 - 7									
8'-10'			15:05							11 - 8									
14'-16'			15:25							11 - 9									
#3.0 0'-2			18:30							11 - 10									
⑦ Date request due: _____ MONTH _____ DAY _____ YEAR				Relinquished by: _____				Date	Time	Received by: _____				Date	Time				
(Call EFEH & Associates to confirm rush needs in advance.)				_____				4/3	2004	Cottaway									
Results requested by (please circle):																			
Fax #: _____																			
Phone #: _____																			
⑧ Data package options: (please circle if requested)				Matrix Codes for ④				In case we have questions when samples arrive, EFEH & Associates should call:											
Specific QC Required Yes No				DW - Drinking Water				Name: _____ Phone: _____											
Dry Weight Basis?				WW - Waste Water				Send report to: _____											
Yes No				GW - Ground Water															
				O - Oil/Organic Liquids															
				S - Soils/Solids															
				NC - Specify in Remarks															



CHAIN OF CUSTODY

EFEH & ASSOCIATES

3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

EFEH & ASSOCIATES
CANNOT ACCEPT VERBAL
ORDERS OR CHANGES.
PLEASE FAX CHANGES
TO (281) 996-5550
ATTENTION:
SAMPLE RECEIVING

Please Print. There are 10 items to fill in.

① Company: <u>Decker - McKim</u>		Address: _____ Zip: _____		Site: _____ P.O. #: _____		Sampler: <u>J. Sasseen</u>		④ Matrix		⑤ Analyses Requested		⑥	
② Sample Identification		Date Collected	Time Collected	③ Grab	Composite	Number of Containers	Container Size	Container Material	Use Codes From Below	Matrix			Remarks / Preservation
#3.0 4'-6'		4/2/02	18:40	X		1		S	X	ML125-11			ON Ice
10'-12'			18:50							11-12			
14'-16'			19:00							11-13			
18'-20'			19:15							11-14			
#4.0 5'-7'		4/3/02	09:00							11-15			
10'-12'			09:15							11-16			
15'-17'			09:30							11-17			
20'-22'			09:40							11-18			
#5.0 0'-2'			15:30							11-19			
5'-7'			15:40							11-20			
⑦ Date request due: _____ MONTH _____ DAY _____ YEAR		Relinquished by: _____		Date	Time	Received by: _____		Date	Time	⑨			
(Call EFEH & Associates to confirm rush needs in advance.)		_____		4/3	2004	Cattaway							
Results requested by (please circle):													
Fax #: _____													
Phone #: _____													
⑧ Data package options: (please circle if requested)		Matrix Codes for ④											
Specific QC Required Yes No		DW - Drinking Water											
Dry Weight Basis?		WW - Waste Water											
Yes No		GW - Ground Water											
		O - Oil/Organic Liquids											
		S - Soils/Solids											
		NC - Specify in Remarks											
In case we have questions when samples arrive, EFEH & Associates should call:													
Name: _____ Phone: _____													
Send report to: _____													

CHAIN OF CUSTODY

EFEH & ASSOCIATES
CANNOT ACCEPT VERBAL
ORDERS OR CHANGES.
PLEASE FAX CHANGES
TO (281) 996-5550
ATTENTION:
SAMPLE RECEIVING

Please Print. There are 10 items to fill in.

Company: Decker-mcKim

Address: _____ Zip: _____

Site: _____ P.O. #: _____

Sampler: J. Staseen

Matrix: ④

Number of Containers

Container Size

Container Material

Use Codes From Below

⑤ Analyses Requested

AS

Matrix

Sample Identification	Date Collected	Time Collected	③ Grab	Composite	Number of Containers	Container Size	Container Material	Matrix	AS	Analyses Requested	Remarks / Preservation
# 5.0 10'-12'	4/3/02	15:55	X		1			S	X	m 6125-21	ON Ice
└ 15'-17'		16:10								" - 22	└
└ 20'-22'		16:20								" - 23	
# 6.0 5'-7'		17:55								" - 24	
└ 10'-12'		18:05								" - 25	
└ 15'-17'		18:20								" - 26	
└ 20'-22'		18:30								" - 27	
# 1.0 H ₂ O AT 22'		08:00				32 PG				" - 28	
# 2.0 H ₂ O AT 17.5'		08:20								" - 29	└
# 3.0 H ₂ O AT 23'		08:30								" - 30	

Date request due: _____

(Call EFEH & Associates to confirm rush needs in advance.)

Results requested by (please circle):

Fax #: _____

Phone #: _____

Relinquished by: _____

Date

Time

Received by: _____

Date

Time (y)

Data package options: (please circle if requested)

Matrix Codes for ④

Specific QC Required Yes No

Dry Weight Basis? Yes No

In case we have questions when samples arrive, EFEH & Associates should call:

Name: _____ Phone: _____

Send report to: _____



EFEH & ASSOCIATES

3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

CHAIN OF CUSTODY

EFEH & ASSOCIATES
CANNOT ACCEPT VERBAL
ORDERS OR CHANGES.
PLEASE FAX CHANGES
TO (281) 996-5550
ATTENTION:
SAMPLE RECEIVING

Please Print. There are 10 items to fill in.

1 Company: <u>Decker-mc Kim</u>				Matrix				5 Analyses Requested										
Address: _____ Zip: _____				4														
Site: _____ P.O. #: _____																		
Sampler: <u>J. Sasseen</u>																		
2 Sample Identification		Date Collected	Time Collected	3 Grab	Composite	Number of Containers	Container Size	Container Material	Matrix	Use Codes From Below	6							
#7.0 5'-7'		4-4-02	07:30	X		1		S	X		mg 125 - 31 ON ice							
├ 10'-12'			07:45								" - 32							
├ 15'-17'			08:00								" - 33							
#8.0 0'-2'			10:15								" - 34							
├ 4'-6'			10:25								" - 35							
4'-9' 9'-11'			10:35								" - 36							
├ 14'-16'			10:40								" - 37							
#9.0 5'-7'			11:50								" - 38							
├ 10'-12'			12:00								" - 39							
├ 15'-17'			12:10								" - 40							
7 Date request due: _____ MONTH _____ DAY _____ YEAR				Relinquished by: _____				Date	Time	Received by: _____				Date	Time	9		
(Call EFEH & Associates to confirm rush needs in advance.)				[Signature]				4/4	1556	Cattaway								
Results requested by (please circle):																		
Fax #: _____																		
Phone #: _____																		
8 Data package options: (please circle if requested)		Matrix Codes for 4																
Specific QC Required Yes No		DW - Drinking Water																
Dry Weight Basis?		WW - Waste Water																
Yes No		GW - Ground Water																
		O - Oil/Organic Liquids																
		S - Soils/Solids																
		NC - Specify in Remarks																
In case we have questions when samples arrive, EFEH & Associates should call:																10		
Name: _____ Phone: _____																		
Send report to: _____																		



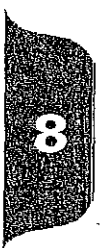
CHAIN OF CUSTODY

EFEH & ASSOCIATES
CANNOT ACCEPT VERBAL
ORDERS OR CHANGES.
PLEASE FAX CHANGES
TO (281) 996-5550
ATTENTION:
SAMPLE RECEIVING

3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

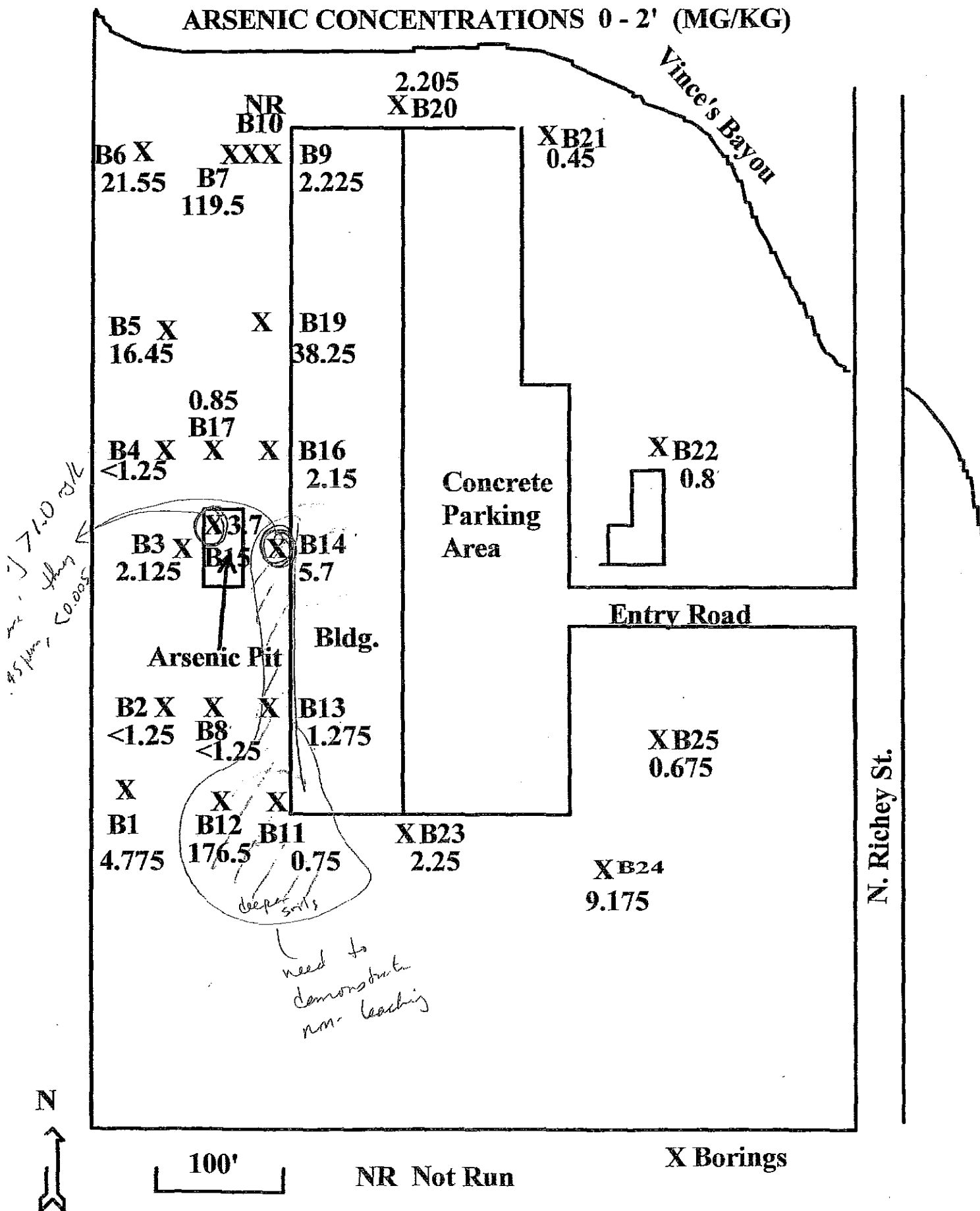
Please Print. There are 10 items to fill in.

① Company: <u>Decker-McKim</u>				Matrix				⑤ Analyses Requested										
Address: _____ Zip: _____				④														
Site: _____ P.O. #: _____																		
Sampler: <u>J. Sasseen</u>																		
② Sample Identification		Date Collected	Time Collected	③ Grab	Composite	Number of Containers	Container Size	Container Material	Matrix	Use Codes From Below	⑥							
#10.0 5'-7'		4/4/02	13:35	X		1		S	X		m6125-41 ON ICE							
└ 10'-12'		└	13:45	└		└		└	└		11 - 42							
└ 15'-17'		└	13:55	└		└		└	└		11 - 43							
#4.0 H2O AT 24'		4/4/02	08:50			32	P6w				11 - 44							
#5.0 H2O AT 19'		└	08:45	└		└		└	└		11 - 45							
#6.0 H2O AT 19'		└	08:35	└		└		└	└		11 - 46							
#7.0 H2O AT 15'		└	14:20	└		└		└	└		11 - 47							
#8.0 H2O AT 14'		└	14:30	└		└		└	└		11 - 48							
#9.0 H2O AT 14'		└	14:35	└		└		└	└		11 - 49							
#10.0 H2O AT 15'		└	14:50	└		└		└	└		11 - 50							
⑦ Date request due: _____ MONTH DAY YEAR (Call EFEH & Associates to confirm rush needs in advance.)				Relinquished by: _____				Date	Time	Received by: _____				Date	Time			
				_____				4/4	1556	Cottaway					56			
Results requested by (please circle):																		
Fax #: _____																		
Phone #: _____																		
⑧ Data package options: (please circle if requested)				Matrix Codes for ④														
Specific QC Required Yes No				DW - Drinking Water														
				WW - Waste Water														
				GW - Ground Water														
				O - Oil/Organic Liquids														
				S - Soils/Solids														
				NC - Specify in Remarks														
Dry Weight Basis? Yes No								In case we have questions when samples arrive, EFEH & Associates should call:										
								Name: _____ Phone: _____										
								Send report to: _____										



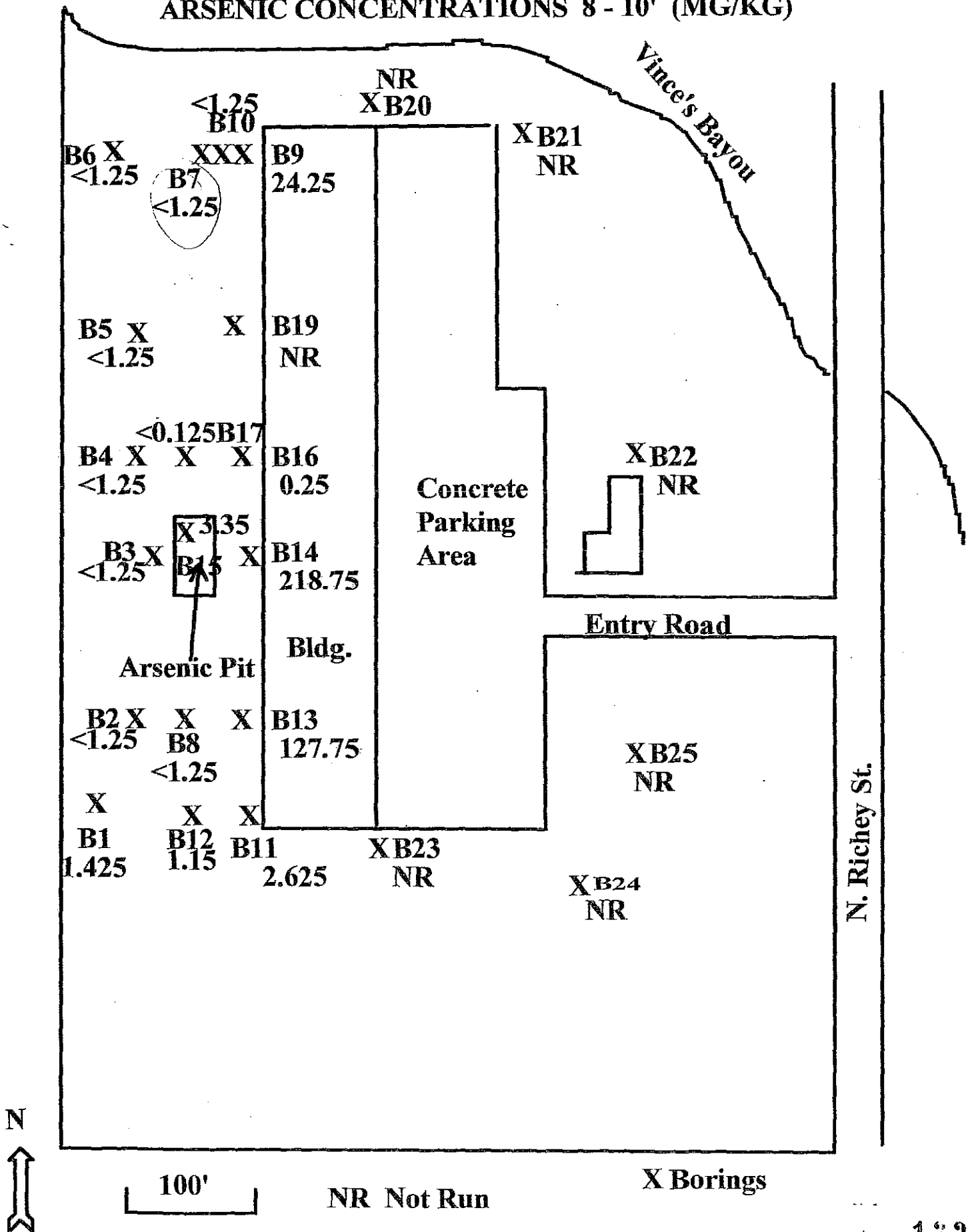
Attachment 5B Surface Soil COC Concentration Maps

ATTACHMENT 5b SURFACE COC CONCENTRATION MAP ARSENIC CONCENTRATIONS 0 - 2' (MG/KG)

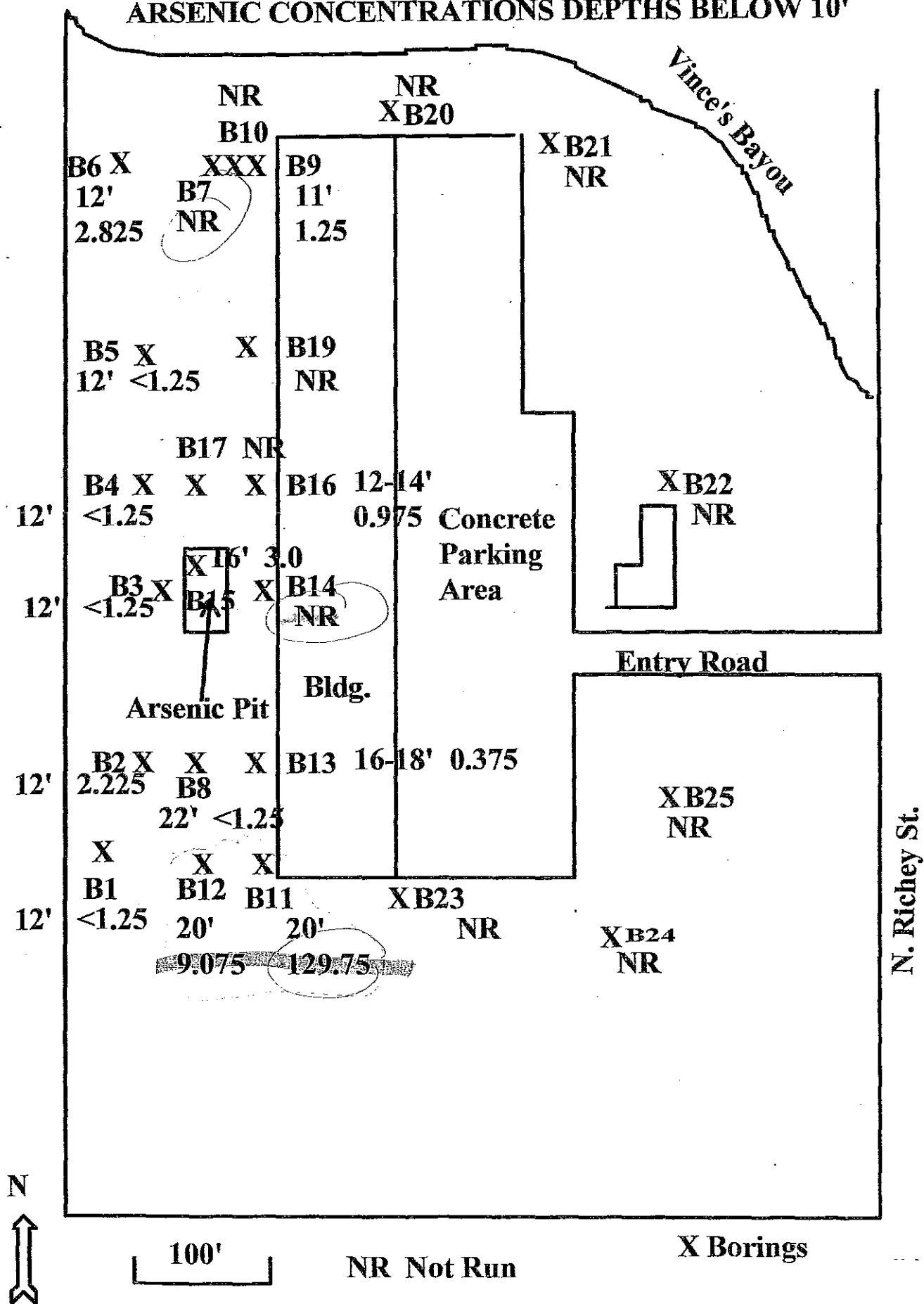


Worksheet 5.6 Subsurface Soil COC Summary

WORKSHEET 5.6 SURFACE SOIL COC CO' CENTRATION MAP
ARSENIC CONCENTRATIONS 8 - 10' (MG/KG)



WORKSHEET 5.6 SL SURFACE SOIL COC CC CENTRATION MAP
ARSENIC CONCENTRATIONS DEPTHS BELOW 10'



Robert J. Huston, *Chairman*
R. B. "Ralph" Marquez, *Commissioner*
Kathleen Hartnett White, *Commissioner*
Jeffrey A. Saitas, *Executive Director*



TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

January 14, 2002

Mr. Decker McKim
Owner/Broker
REMAX Southeast
6005 Fairmont Parkway, Suite J
Pasadena, Texas 77505

CERTIFIED MAIL #7467
RETURN RECEIPT REQUESTED

Re: Request to Submit Affected Property Assessment Report
400 N. Richey Street, Pasadena, Texas
TNRCC SWR No. 52123

Dear Mr. McKim:

The Texas Natural Resource Conservation Commission (TNRCC) has received an Environment Site Assessment for Arsenic in Groundwater at 400 N. Richey site dated September 11, 2001. The TNRCC cannot approve the submittal at this time. Please revised and collect information that is vital for a submittal of an Affected Property Assessment Report (APAR) for the 400 N. Richey site. Technical guidance on the components of an APAR can be found on the TNRCC website address <http://www.tnrcc.state.tx.us/forms.html>, form number 10325, or search under keyword APAR. The report referenced groundwater samples that were collected thru the bore hole and filtered before analyses. It should be noted that the TNRCC will not accepted or make any risk determinations based on data that has been gathered improperly. Groundwater should not be filtered unless the turbidity exceeds 10 nephelometric turbidity units and then should only be filtered with a 10.0 micron filter. The groundwater should also be collected from properly constructed and developed monitoring wells and analyzed at an approved laboratory. The revised submittal will be technically reviewed.

An original and one copy of the revised submittal must be submitted to the TNRCC at the letterhead address using mail code number MC-127. An additional copy should be submitted to the TNRCC Region 12 Office in Houston. Your response must be received within 120 days from the date of this letter. The facility name, location and identification number(s) in the TNRCC reference line above should be included in your response.

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

IHW/WAT 52123-00049992-A
US Oil Recovery LLC
Attn: Bill Shafer
400 N Richey St
Pasadena, TX 77506

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X Penny Stelly

- 2/5/04
☐ Agent
☐ Addressee

B. Received by (Printed Name)

Penny Stelly

C. Date of Delivery

2/5/04

D. Is delivery address different from item 1? ☐ Yes

If YES, enter delivery address below: ☐ No

3. Service Type

- ☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

2. Article Number

(Transfer from service label)

7003 0500 0003 1982 0635



SWR # 52123

CAS DOC # 14122
PROJ. MGR B. Wilkerson

Decker McKim
Owner/Broker

RECEIVED
SEP 14 2001
REMEDATION DIVISION
Corrective Action Section

September 11, 2001

Mr. Brad Wilkerson
Texas Natural Resource Commission
12100 Park 35 Circle
Building F – MC127
Austin, TX 78753

RE: 400 Richey, Pasadena, TX

Dear Mr. Wilkerson:

As per your request, enclosed is the final Environmental Site Assessment for Arsenic in Groundwater, dated August 27, 2001, for the above referenced property.

If you have any questions regarding this information, please feel free to contact Dr. Edwin B. Smith Jr. with EFEH & Associates, 281-996-5031, or me.

Sincerely,

Decker McKim
Owner Broker

RE/MAX Southeast

6005 Fairmont Parkway, Suite J • Pasadena, Texas 77505 • Office: (281) 487-9475 • Fax: (281) 487-5372

Toll Free: (800) 251-4584



Each RE/MAX® office is independently owned and operated.



SWR # 52123

CAS DOC # 14122
PROJ. MGR BWilkerson

EFEH & ASSOCIATES

3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

August 27, 2001

RECEIVED

Mr. Decker McKim
ReMax Southeast
6019 Fairmont Parkway, Suite B
Pasadena, Texas 77505

SEP 14 2001
REMEDATION DIVISON
Corrective Action Section

Re: Environmental Site Assessment for Arsenic in Groundwater at 400 N. Richey St., Pasadena, TX.

Dear Mr. McKim:

EFEH & Associates of Pearland, Texas has performed an environmental site assessment of the 12.2 acre property located at 400 N. Richey Street, Pasadena, Texas, for the presence of arsenic in soil and groundwater. Said property is currently occupied by two tenants. Several visits were made to the site from June 24 through July 17, 2001 for the purpose of obtaining samples by Dr. Edwin B. Smith, Jr., and Mr. Jason Sasseen of EFEH & Associates, and Mr. David Withers and his employees of Monitor Drilling.

1. INTRODUCTION

1.1 Purpose - This site assessment was performed at the request of Mr. Decker McKim of ReMax Southeast.

1.2 Special Terms and Conditions - This report is formatted to meet the recommendations of ASTM E1527 which governs Environmental Site Assessments.

1.3 Limitations and Exceptions of Assessment - No encumbrances to the on-site visit were encountered. The persons interviewed as current tenants were cooperative in answering the investigator's questions.

1.4 Limiting Conditions and Methodology Used - This site assessment follows the methodology prescribed in ASTM E1527 except where noted.

2. SITE DESCRIPTION

2.1 Location and Legal Description - The subject property is located to the West of North Richey Street.

2.2 Site and Vicinity Characteristics - The property assessed is rectangular in shape with four sides. The property is sloping. The

EFEH & ASSOCIATES

USGS 7.5 minute topographic map (Pasadena, TX), shows the site to slope gently from Center (27 feet elevation) to East & Northeast (approximately 11-13 feet elevation).

2.3 Description of Structures, Roads, other Improvements on the Site - The subject property has two buildings currently standing. One is a warehouse. The warehouse is a rectangle and is located slightly to the rear of the property. A rail spur which ran along the rear has now been removed. The area which is outside the rail spur is overgrown with low brush. The area between the office building and the warehouse is concreted with a few areas of asphalt. The office building is located with a vehicular scale to the front of the property. Two grassy areas are located in the front, one on each side of the entry road.

2.4 Information Reported by User Regarding Environmental Lien or Specialized Knowledge or Experience - The subject property has been deed recorded and subject to a surface cleaning for arsenic. The materials collected were deposited in a pit to the rear of the warehouse as shown in the drawings. The arsenic was treated with lime to render insoluble in water as calcium arsenate in presence of excess calcium and sulfate. The findings of the borings made between June 29, 2001 and July 16, 2001 are given in Section 5.1.

2.5 Current Uses of the Property - The property is currently occupied by an appliance storage company and a church storage. No hazardous materials were found on inspection.

2.6 Past Use of the Property - Rural suburban land prior to the buildings being erected.

2.7 Properties adjoining the subject property are currently used for the following:

North: Vince's Bayou & Gulf Coast Waste Disposal
facility
South: Railroad
East: Pasadena Paper
West: Vacant land/Pipelines/Powerlines

Observations of the adjoining properties made from the adjacent streets showed no environmentally unsound practices underway. Adjoining properties had no areas of impoundments, oily/stained ground, excessive fill from unknown or suspect sources, stressed vegetation, or unusual odors.

2.8 Site Rendering, Map, or Site Plan - Attached is a copy of the map prepared by the site assessor with field notes.

EFEH[&] ASSOCIATES

3. RECORDS REVIEW

3.1 Standard Environmental Record Sources, Federal and State - Deed recorded arsenic contamination.

3.2 Physical Setting Sources - The USGS 7.5 topographic map shows the area to slope from West to East; with an elevation of approximately 27 feet to 11-13 feet at Vince's Bayou.

The three hydrogeologic units underlying Harris County are the Evangeline, Chicot, and Jasper aquifers. In general, the groundwater gradient is to the Southeast for these major aquifers. The Evangeline aquifer is the major water supply for the portion of Harris County containing the subject property. It lies 100 feet above mean sea level in extreme northwest Harris County, to 600 feet below mean sea level in the southwest Harris County area. The Chicot Aquifer is typically encountered in southern Harris County only. The Jasper Aquifer has not been developed significantly and is not a common source of drinking water in Harris County at this time.

In addition to the above mentioned primary aquifers, groundwater often occurs in perched, or isolated, discontinuous units. These are typically at depths less than 20 feet below grade in the Houston area. These units are not typically used for irrigation or drinking water supply, but are the aquifers most likely to be impacted by leaking underground storage tanks and/or surface spills. Flow direction in these units is variable, but typically follows the grade topography or toward the nearest down gradient water body. A subsurface investigation would be required to accurately gauge the presence and flow of any perched water unit under the subject property. The present drilling located perched water from 9-16 feet. This is below the 5-8 feet fill from Houston Sky Channel.

Wetlands are defined as areas which are inundated or saturated with surface or groundwater at a frequency or duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life under saturated soil conditions (Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1). By observations of the site and adjoining properties, it appears this area is not a jurisdictional wetlands area.

Radon is a colorless, odorless, naturally occurring gas that can migrate through permeable rocks and soils into buildings and the atmosphere. Geologic materials underlying a site which contain greater amounts of uranium produce greater amounts of radon gas. According to the Texas Indoor Radon Survey, 1992 prepared by the Texas Department of Health, four areas in Texas have the potential to support radon formation: the High Plains, the Big Bend area, the Llano Uplift area,

EFEH[&] ASSOCIATES

and several counties in Southeast Texas overlying Tertiary sands in the vicinity of some commercial mining activities. The subject property is not located close to these areas and is not considered likely to be affected by excess radon gas.

The USGS Land Use and Land Cover Map, Houston, Texas sheet, 1973 shows the subject property to be on soils of Urban Land. Urban Land is composed of areas that have been cut or filled so as to make classification impractical by standard geological indices. This land is also composed of 5-8 feet of spoils from the Houston Ship Channel.

According to the Geological Atlas of Texas, Pasadena Sheet (1982), the Urban Soils are developed atop the Beaumont Formation, a deltaic-fluvio deposit of Pleistocene age. The Beaumont is a heterogeneous formation, consisting of clay mixed with interbedded sand and silt. In most areas of Houston, the undisturbed underlying soil exhibits low permeability.

Potable water and sewerage is provided to the site by the City of Pasadena.

3.3 Historical Use Information - None used.

3.4 Additional Record Sources, if any - None used.

4. INFORMATION FROM SITE RECONNAISSANCE AND INTERVIEWS

4.1 Hazardous Substances in Connection with Identified Uses - Previous usage of warehouse resulted in recorded contamination by arsenic.

4.2 Hazardous Substance Containers and Unidentified substance Containers - None noted.

4.3 Storage Tanks - None on site.

4.4 Indication of PCBs - There are no transformers on poles on the property.

4.5 Indications of Solid Waste Disposal - None.

4.6 Physical Setting Analysis, if Hazardous Waste Migration is an Issue - If a spill were to occur on site, it would migrate to the drainage ditches to the Southeast of the property and into Vince's Bayou leading to the Ship Channel. The tract in front of the warehouse is almost completely concreted and asphalted. This prevents migration into the soil.

EFEH & ASSOCIATES

4.7 Any other areas of Concern - Lead based paint and asbestos are common areas of concern for property owners and managers. Subsidence faulting is also an area of concern in the Houston area.

Lead based paint is defined as paint containing more than 0.6% lead on a dry basis. No painting was conducted on the property. Asbestos insulation was not checked at the site.

Subsidence evidences were not observed in the surrounding area. Such evidence includes moderately steep slopes not due to excavation or fill and bands of street repairs due to land movement.

Electromagnetic field elevation in the subject property is not an issue as the power lines against and in the property have been stepped down in voltage to less than 8,000 volts. The high voltage lines to the west are sufficiently distant to be of no concern.

5. FINDINGS OF ARSENIC CONTAMINATION

5.1 Sampling - Beginning on July 29, 2001, EFEH & Associates obtained samples of soils and water from the 12.2 acres of land located at 400 N. Richey Street, Pasadena, Texas. Eight borings were made using a truck-mounted Diedrich D-50 drilling rig, utilizing hollow-stem augering techniques. The soil samples were obtained utilizing split spoon sampling device. Two-foot split spoon samples were taken at 0.2 feet and 8-10 feet, with water samples obtained using a teflon bailer at the depth specified. Groundwater was usually encountered at approximately 10-11 feet below grade. Samples were taken from the open borehole and filtered by a 8-10 micron porosity filter. All drilling and sampling equipment was thoroughly cleaned between borings to minimize cross-contamination potential. The soil boring locations are shown on Figure 2. The boreholes were sealed with 2 feet of bentonite, then portland cement to the surface to prevent future infiltration route for water.

A saturated, silty, sandy clay, of less than eighteen inches was found throughout the property, primarily at approximately 10 feet. The seventeen remaining samples, due to softness of the soil unable to support the drill truck, were made using a John Deere tractor mounted push probe. Samples were made as previously stated, except the front area water strata was struck before 10 feet (Samples 19-25).

The encountered materials are typical of the Beaumont Formation, which consists of plastic, stiff, silty clay with numerous relict sand channels and overbank deposits. These types of geomorphologic features form discontinuous sand and silt stringers and splay-type deposits which are the groundwater-bearing units in the shallow subsurface in the southeast Houston area. These relict sand channels are generally

EFEH & ASSOCIATES

restricted in the lateral and horizontal directions. They are considered to be hydraulically connected to each other and to the bayous and the Houston Ship Channel. The groundwater at these shallow depths is typically brackish.

5.2 Analytical Results - Samples of soil and water were submitted to the laboratory for analyses using TNRCC/EPA approved methodologies for arsenic and one water sample for chlorinated pesticides using EPA Method 8080. The results of these analyses are given in Table 1 and Table 2. A copy of the laboratory reports is given in Appendix B.

Since arsenic had been previously detected in the groundwater as well as the soil, the presence of arsenic, a listed pollutant, was specifically targeted. A level of 200 mg/Kg was established as the TNRCC mandated action level and 6mg/Kg as the background soil level, with 0.05 mg/L arsenic as the regulatory level. All water samples were filtered in the field. Boreholes 14 and 15 were in the center of the burial pit. Borehole 14 exceeded the TNRCC level (219 mg/Kg arsenic). Due to particle size (<10 micron) and haze in the water, the water samples were refiltered using 0.43 micron CMC filters. The reduction in water borne arsenic is indicative of particulate borne (soil origin) arsenic, with the previous treatment rendering the arsenic present insoluble in water.

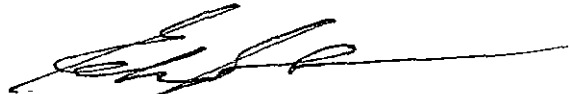
Water from Borehole 4 was subjected to chlorinated pesticide analyses using EPA method 8080. No pesticide was detected and the results are in Table 2 as the lab report.

6. CONCLUSION

The site at 400 N. Richey Street, Pasadena, Texas, is underlain by clays and silts of the Beaumont formation. There appears to be a continuous silty clay to sandy silt stringer at approximately 10 feet (9-16 feet). All soils outside the vault area are below the TNRCC regulatory level of 200 mg/Kg. No water sample after filtering was found to contain greater than the TNRCC regulatory level of 0.05 mg/L. Also no chlorinated pesticides were found in water from Borehole 4. Therefore, the previous treatment is assumed to be sufficient with only Borehole 14 surrounding soils exceeding.

Please contact me if you have any questions concerning these results.

Sincerely,



Edwin B. Smith, Jr., PhD

EFEH [&] ASSOCIATES

This assessment is limited by any exceptions noted above particularly in section 1.3. This site assessment was made using industry standard methods; however, it is economically unfeasible to identify all potential environmental problems at a given site. EFEH & Associates thus makes no certification or warranty as to the fitness for use of the subject property or on any hazards uncovered in subsequent activities on the subject property.

7. APPENDICES

A Maps and Photographs

B Laboratory Reports

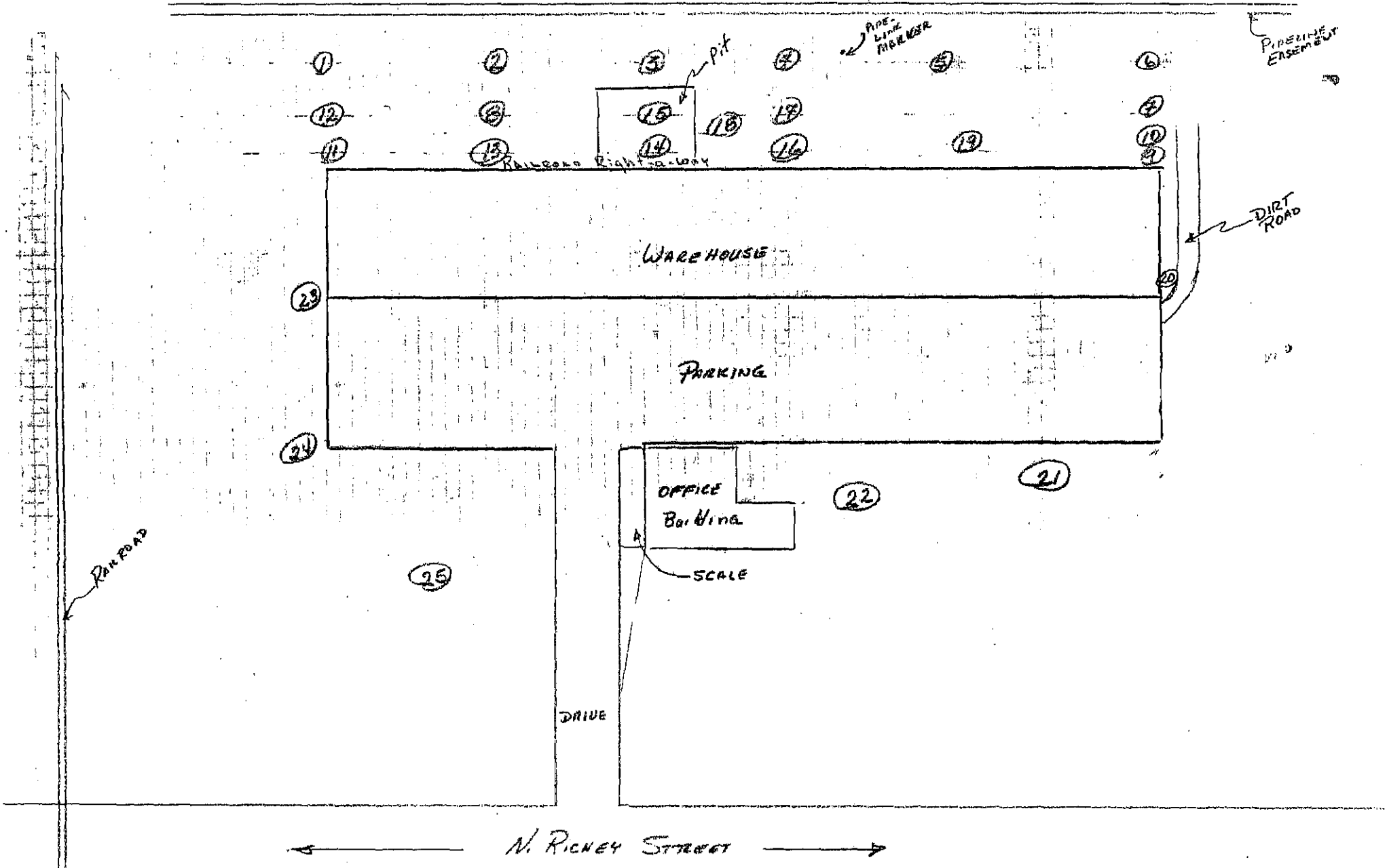
This report may be distributed to and relied upon with respect to any loan upon the property, together with any rating agency rating, or any issuer or purchase of, any security collateral or otherwise backed by such loan.

400 N. RICHEY ST.

EFEH [&] *ASSOCIATES*

APPENDIX A

MAPS AND PHOTOGRAPHS



NOT TO SCALE

400 N. RICHEY STREET, PASADENA, TX

→ N

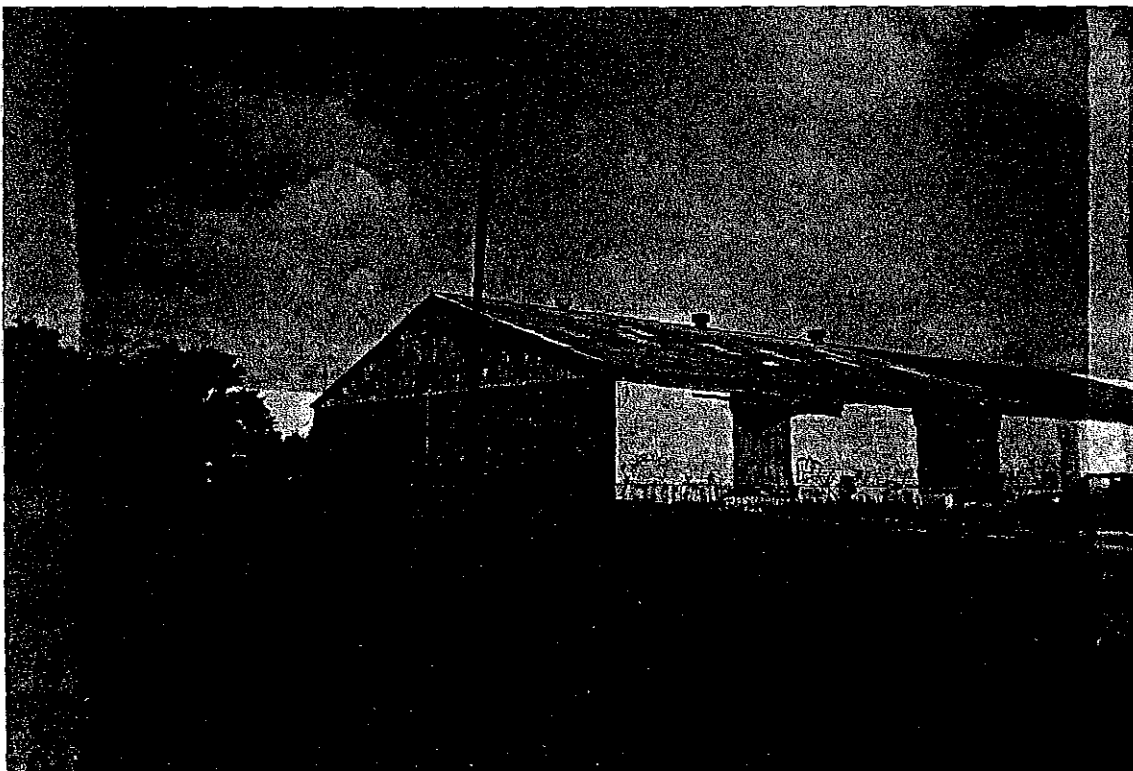
8/27/01 EBS

4-1-6

EFEH[&] ASSOCIATES

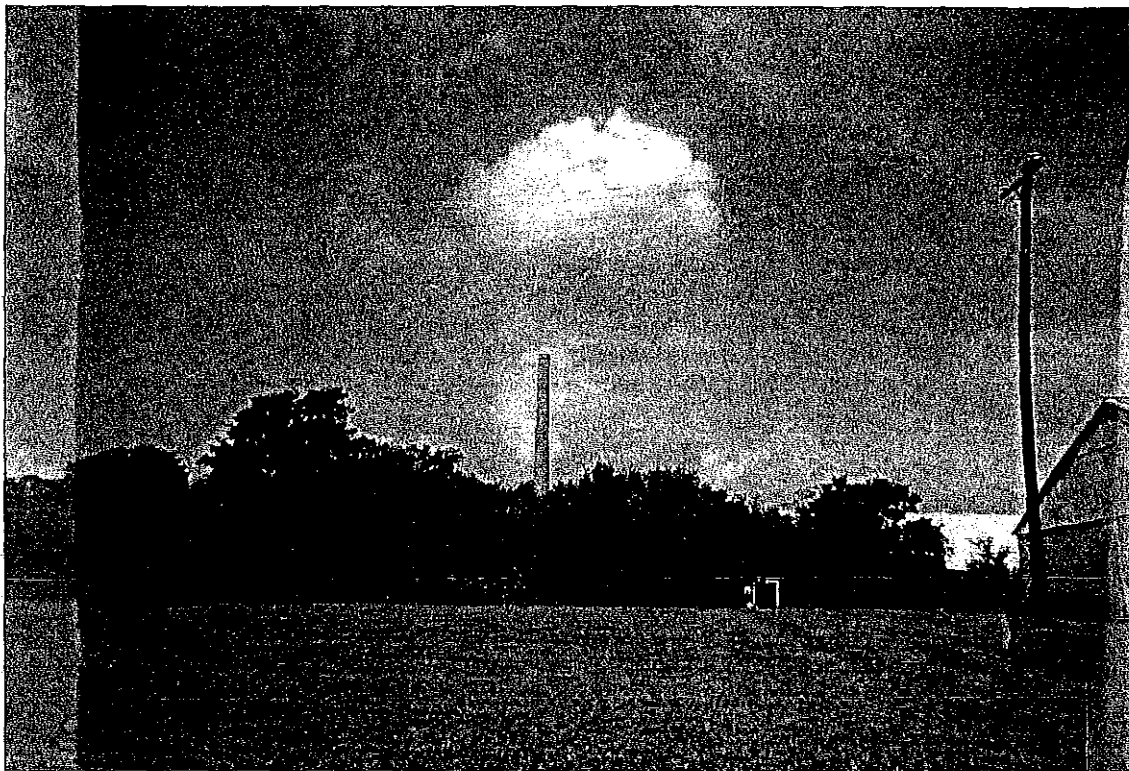


1.) South grassy area showing sampling point and showing office building/scale and front of warehouse.

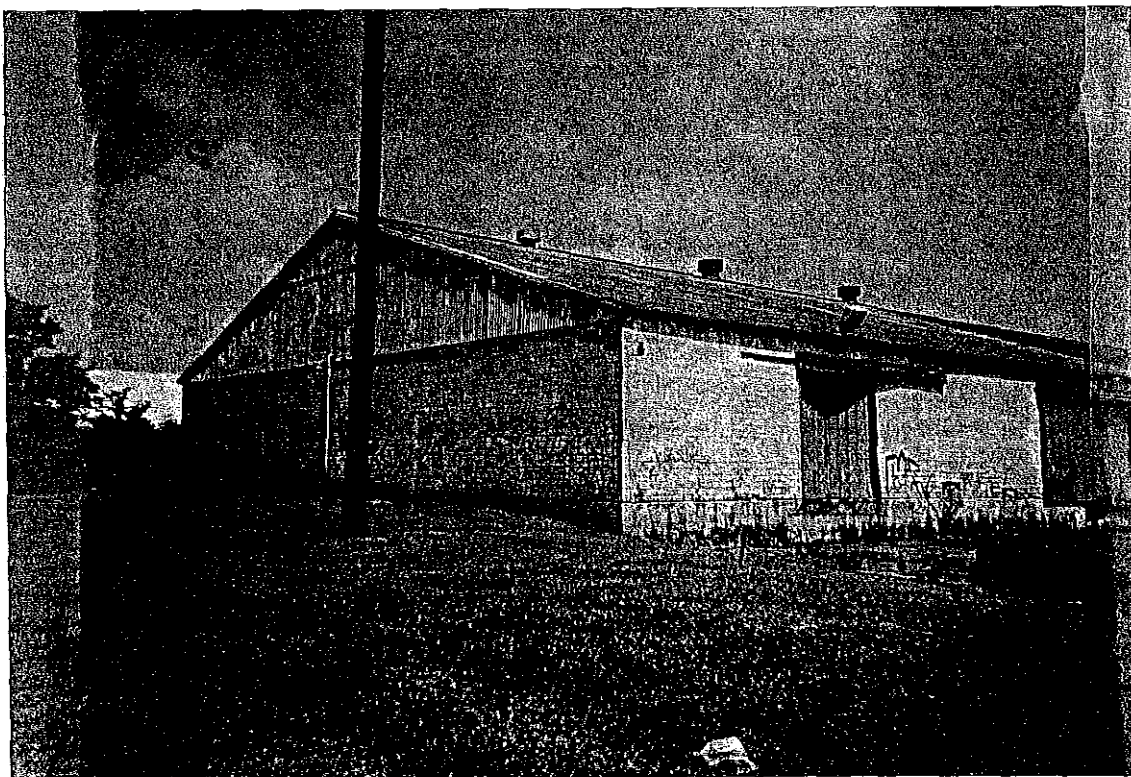


2.) South side grassy area.

EFEH[&] ASSOCIATES

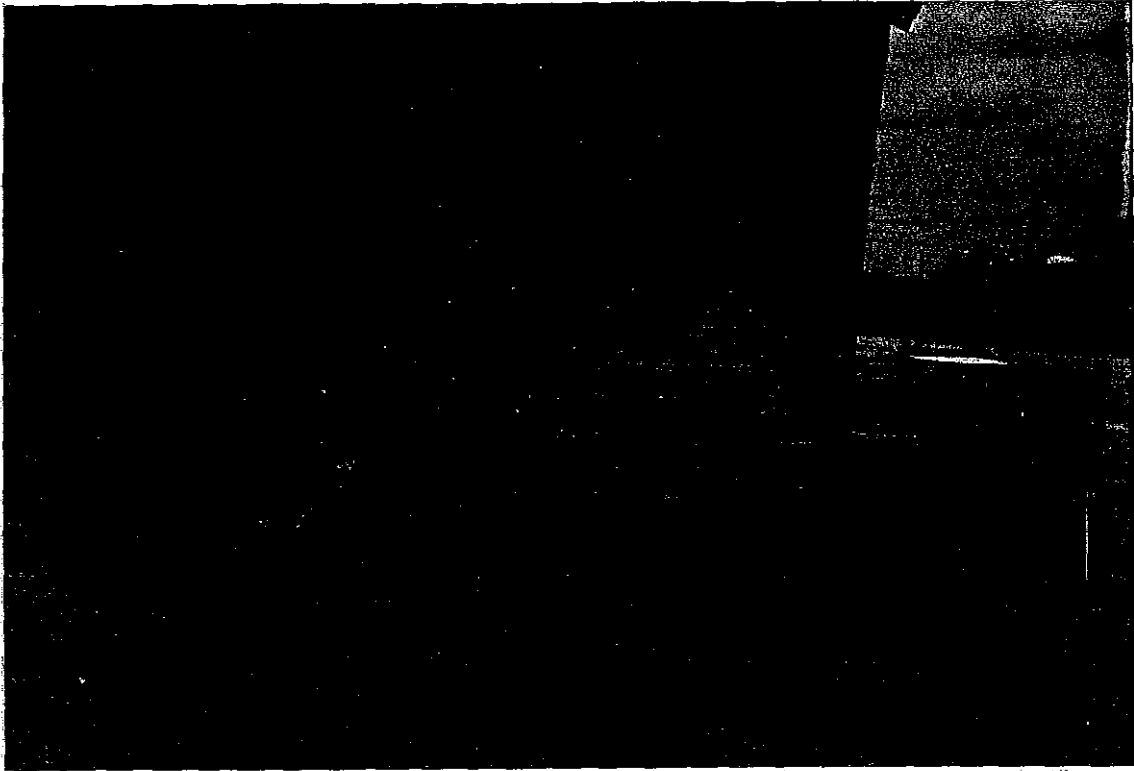


3.) South side grassy area showing Reliant Energy in background.



4.) South side sampling points.

EFEH & ASSOCIATES

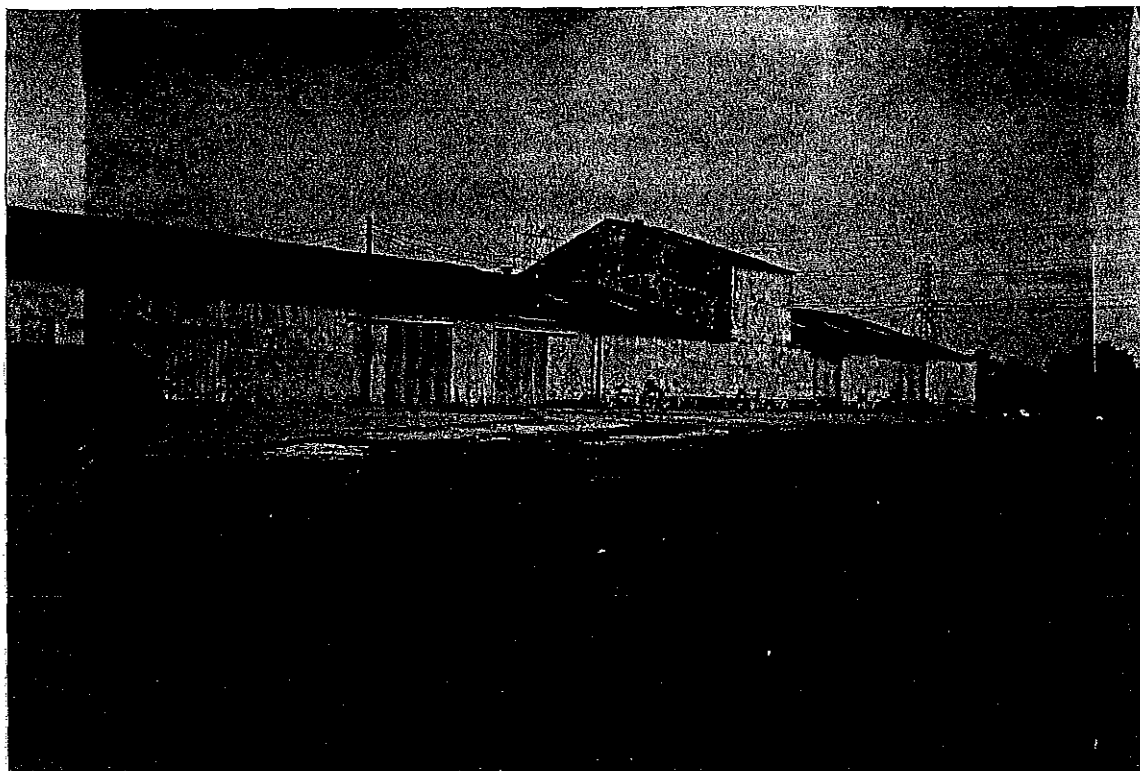


5.) South end of building sample point.

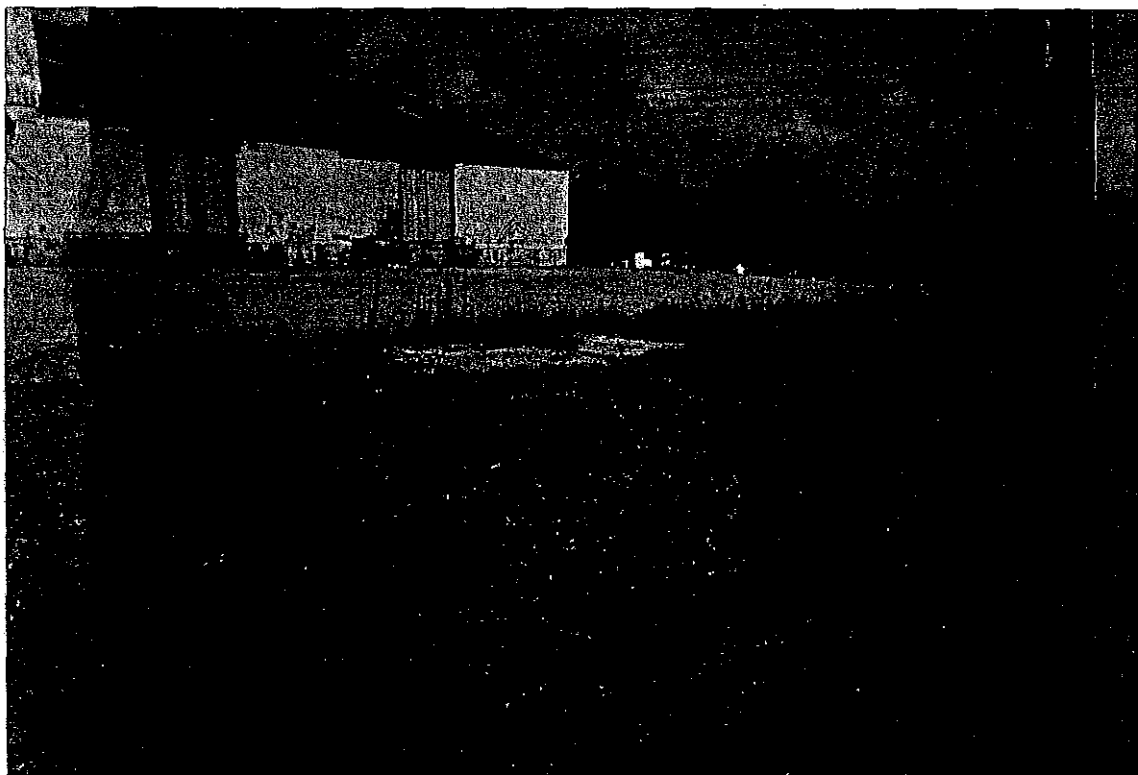


6.) East side grassy area with sample points.

EFEH[&] ASSOCIATES

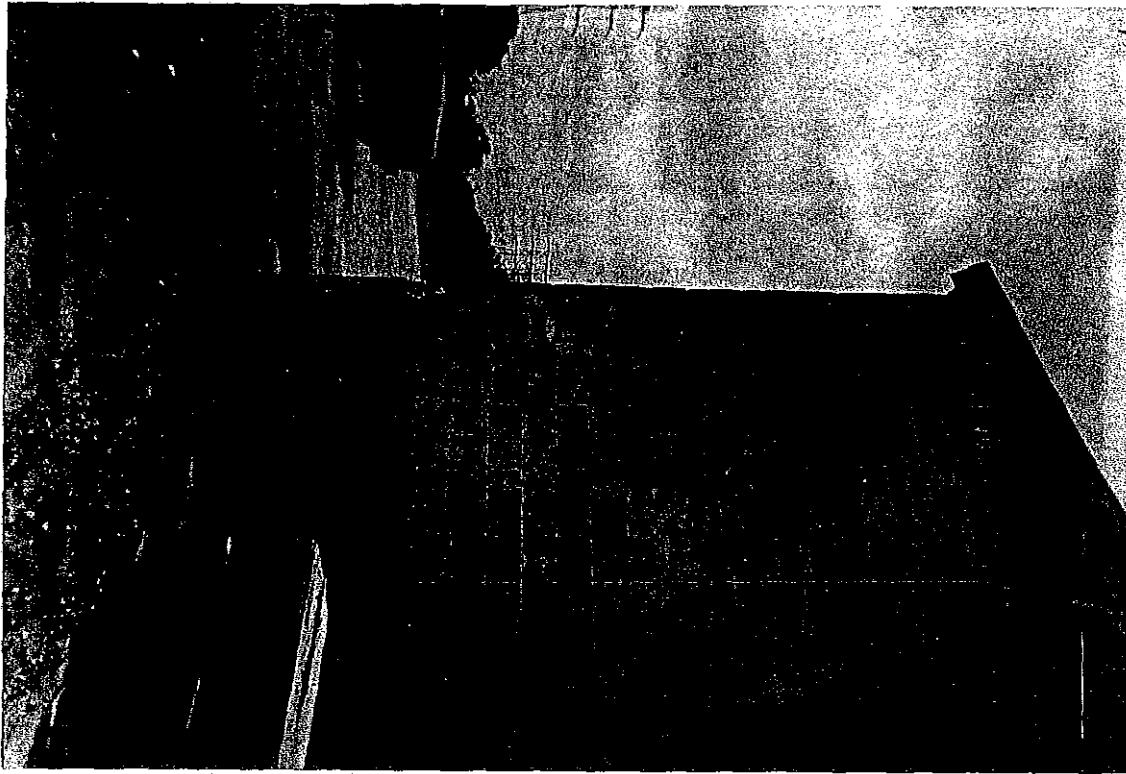


7.) East side of warehouse with sample point.



8.) Northeast end of warehouse showing sample point in grass.

EFEH[&] ASSOCIATES



9.) North end of warehouse sample point.

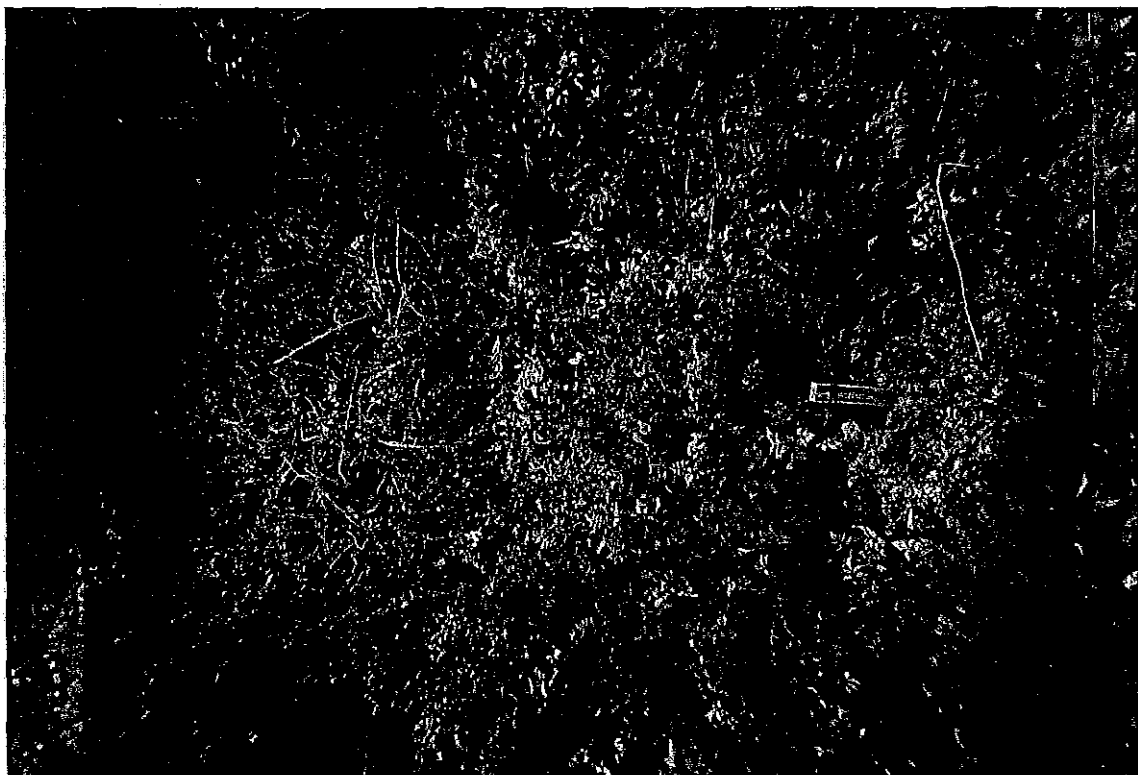


10.) Southwest corner property facing northeast showing Sample Point 1.

EFEH[&] ASSOCIATES

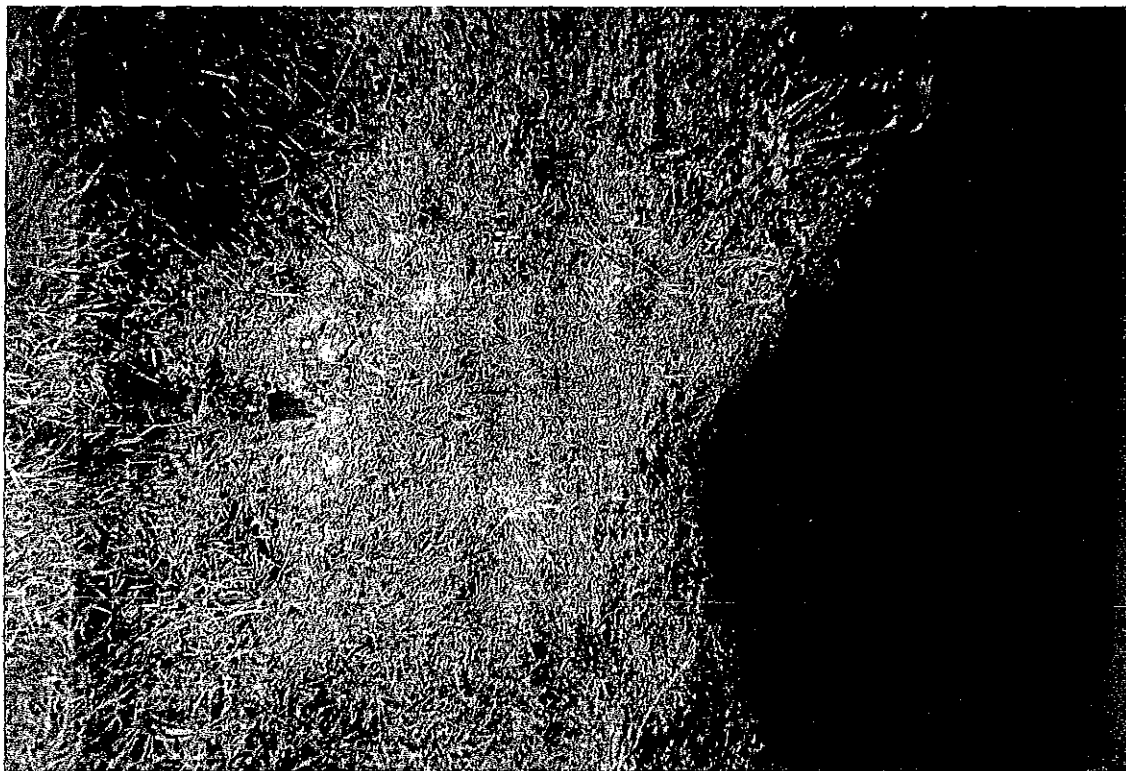


11.) Southwest corner facing north showing sample points along west boundary.

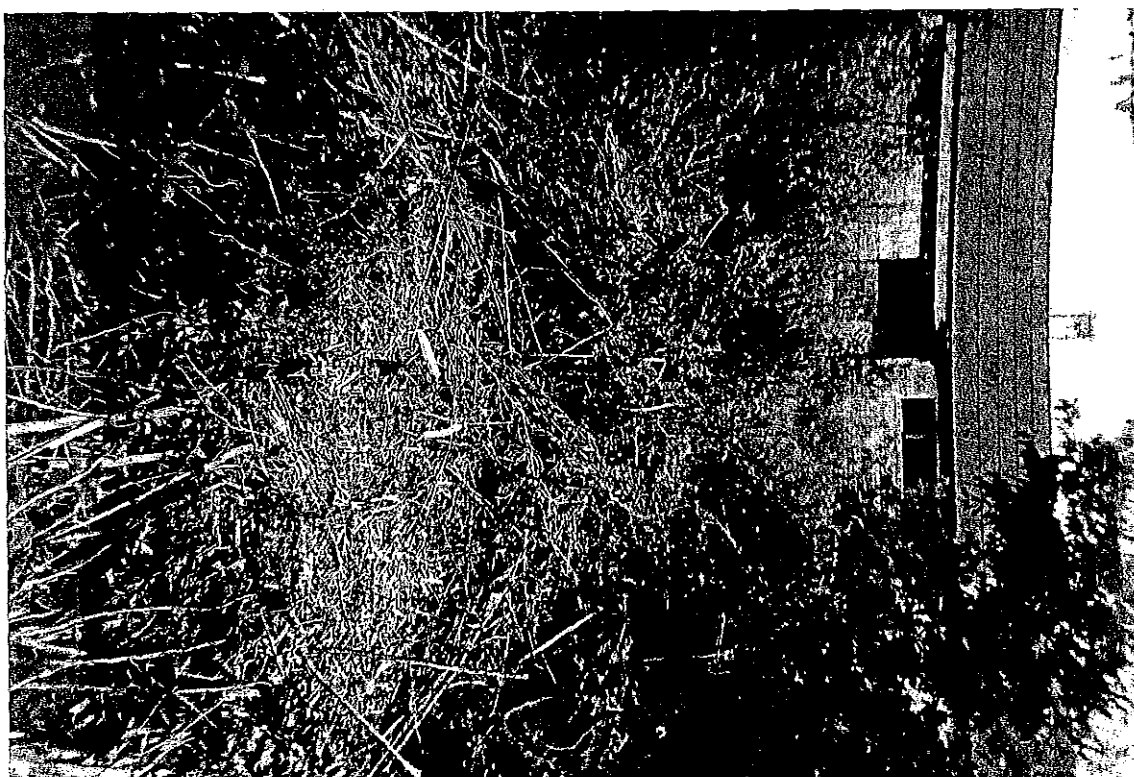


12.) Close-up view of Sampling Point 1 (Borehole 1).

EFEH[&] ASSOCIATES

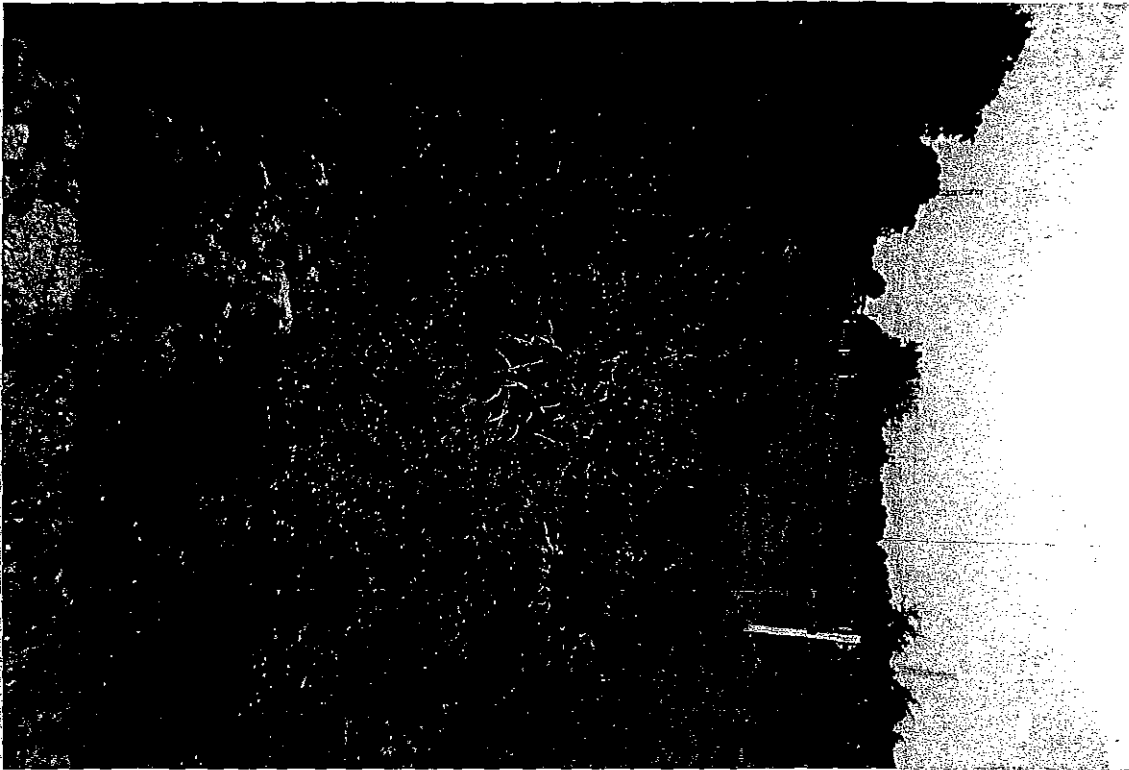


13.) Borehole 2.



14.) Boreholes 3, 15, and 14.

EFEH[&] ASSOCIATES



15.) Borehole 4.

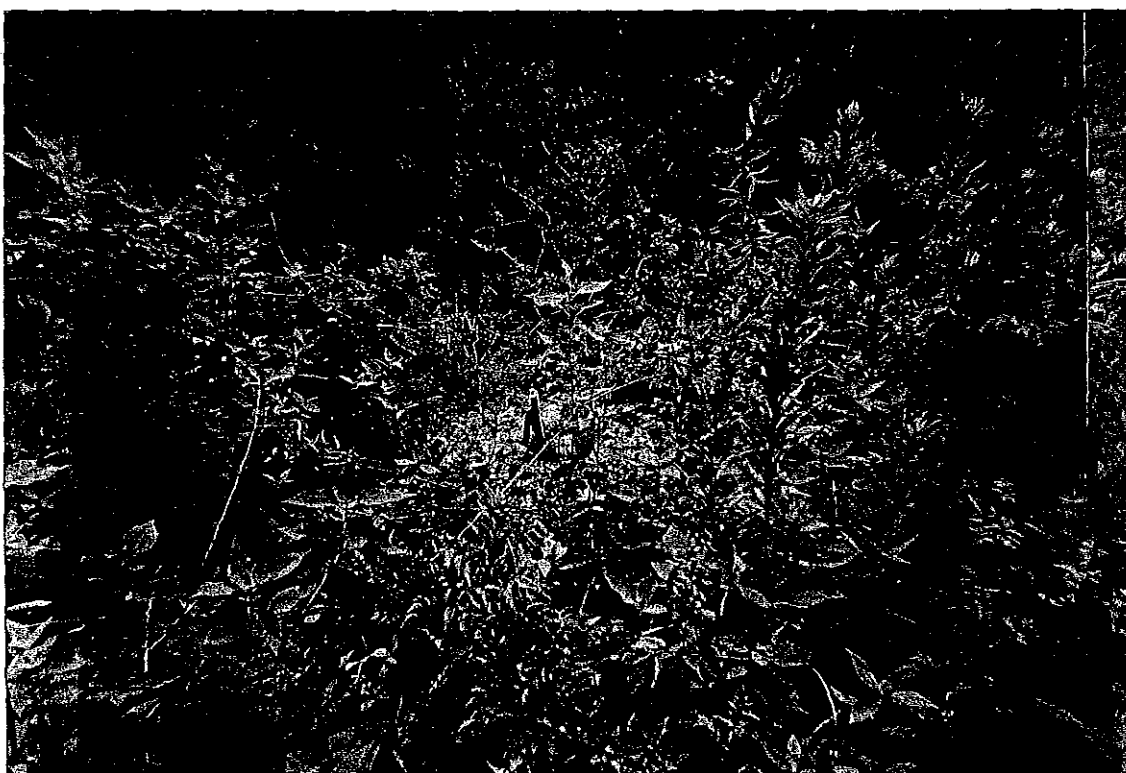


16.) Boreholes 2, 8, and 13.

EFEH[&] ASSOCIATES



17.) Boreholes 4, 17, and 16.



18.) Borehole 19.

EFEH[&] ASSOCIATES



19.) Boreholes 6, 7, 10 and 9.



20.) John Deere Tractor mounted push probe. Water sample being obtained.

400 N. RICHEY ST.

EFEH [&] ASSOCIATES

APPENDIX B

LABORATORY REPORTS

EFEH & ASSOCIATES

LAB NO.	M-3766-1, 2, 3	M-3766-4, 5, 6	M-3766-7, 8, 9	M-3766- 10, 11, 12	M-3766- 13, 14, 15	M-3766- 16, 17, 18	M-3766- 19, 20, 21	M-3788-1, 2, 4
SITE	Borehole 1	Borehole 2	Borehole 3	Borehole 4	Borehole 5	Borehole 6	Borehole 7	Borehole 8
0-2'	4.775	<1.250	2.125	<1.250	16.450	21.550	119.5	<1.250
8-10'	1.425	<1.250	<1.250	<1.250	<1.250	<1.250	<1.250	<1.250
Water level 10'							<1.250	
12'	<1.250	2.225	<1.250	<1.250	<1.250	2.825		
15'								
17'								
22'								<1.250
Water @ Water level	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTE: Arsenic values are mg/Kg - Soil mg/L - Water

EFEH & ASSOCIATES

LAB NO.	M-3877-1, 2, 3	M-3877-4, 5, 6	M-3877-7, 8, 9	M-3877- 10, 11, 12	M-3877- 16, 17	M-3877- 20, 21, 22	M-3877- 23, 24, 26	M-3877- 27, 28, 30
SITE	Borehole 9	Borehole 10	Borehole 11	Borehole 12	Borehole 13	Borehole 14	Borehole 15	Borehole 16
0-2'	2.225		0.750	176.50	1.275	5.700	3.700	2.150
8-10'	24.250	<0.125	2.625	1.150	127.75	218.75	3.350	0.250
Water level 10'								
11'	1.250							
12-14'								0.975
16'							3.000	
16-18'					0.375			
20'			129.75	9.075				
22'								
Water @ Water level	<0.005	<0.005	<0.005	<0.005	<0.005	1.000 ¹	1.080 ¹	<0.005

NOTE: Arsenic values are mg/Kg - Soil mg/L - Water

- 1 Visibly hazy from 1-10 microns silt particles to which arsenic may be attached.
 Refiltered with CMC 0.43 micron filter, reanalyzed, and found less than 0.05 mg/L Arsenic.

EFEH & ASSOCIATES

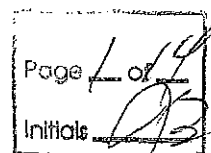
LAB NO.	M-3877- 31, 32	M-3877- 34, 35	M-3877- 37	M-3877- 39, 45	M-3877- 40, 46	M-3877- 41, 47	M-3877- 42, 48	M-3877- 43, 49	M-3877- 44, 50
SITE	Borehole 17	Borehole 18	Borehole 19	Borehole 20	Borehole 21	Borehole 22	Borehole 23	Borehole 24	Borehole 25
0-2'	0.850	0.325	38.250	2.205	0.450	0.800	2.250	9.175	0.675
8-10'	<0.125	1.250							
Water @ Water level	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

NOTE: Arsenic values are mg/Kg - Soil mg/L - Water


EFEH & ASSOCIATES

3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

August 27, 2001



Mr. Decker McKim
 REMAX
 6019 Fairmont Parkway, Suite B
 Pasadena, Texas 77505

Dear Mr. McKim:

Following are the results of the grab water samples submitted to our laboratory for analyses on June 29, 2001:

SAMPLE I.D.	#1	#2	#3
	06/29/01	06/29/01	06/29/01
	0815	0915	1030
LAB NO.	M-3765-1	M-3765-2	M-3765-3
Arsenic, mg/L	<0.05	<0.05	<0.05

SAMPLE I.D.	#4	#5	#6
	06/29/01	06/29/01	06/29/01
	1120	1200	1250
LAB NO.	M-3765-4	M-3765-5	M-3765-7
Arsenic, mg/L	<0.05	<0.05	<0.05

SAMPLE I.D.	#7
	06/29/01
	1510
LAB NO.	M-3765-8
Arsenic, mg/L	<0.05

% RECOVERY: 106.8
 % RPD: 3.49

This report may not be reproduced, except in its entirety, without the express consent of EFEH & Associates. Any results or opinions expressed herein apply only to the sample tested.

EFEH & ASSOCIATES

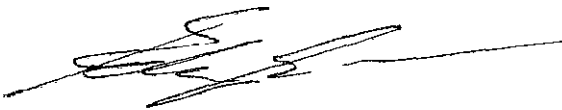
ANALYST: T.N.

DATE & TIME ANALYZED: 07/05/01 1111-1123

METHOD: EPA 6010B

Please contact me if you have any questions concerning these results.

Sincerely,

A handwritten signature in black ink, appearing to read 'Edwin B. Smith, Jr.', with a long horizontal line extending to the right.

Edwin B. Smith, Jr., PhD

EFEH & ASSOCIATES

M 3765(1-8)
Sample Login Checklist

CASE No.: M 3765(1-8) DATE: 7/2/01 INITIALS: CSA

- | | New Client | Yes | No |
|---|------------|-----|------------|
| 1. Is a Chain of Custody form present? | <u>YES</u> | NO | |
| 2. Is the Chain of Custody properly completed? | <u>YES</u> | NO | N/A |
| 3. Are custody seals present on the sample? | <u>YES</u> | NO | |
| If yes, are they intact? | <u>YES</u> | NO | <u>N/A</u> |
| 4. Are all samples tagged or labelled? | <u>YES</u> | NO | |
| Do the labels match the Chain of Custody? | <u>YES</u> | NO | N/A |
| 5. Do all shipping documents agree
<i>(i.e. number of coolers arrived vs. on tickets, if not describe below)</i> | <u>YES</u> | NO | N/A |

6. Condition of shipping container: Good Other: _____

Condition of Samples: Good Broken Labels Missing/Unreadable Other: _____

8. Temperature of samples upon receipt: Solid Ice in cooler or _____ Centigrade

8.a. Chemical Preservations Used HNO₃ H₂SO₄ HCl NaOH NaOH/ZnAc None

8.b. Are samples properly preserved per USEPA requirements? YES NO

If not, describe:

10. Sample disposal: Return to Client Lab disposal

Comments (reference checklist item number):

Client Contact for Resolution:

Name _____ Phone _____ Fax _____ Date and Time _____

Retry for Contact:

Name _____ Phone _____ Fax _____ Date and Time _____

IMPORTANT
If any boldface items are circled, the data generated from these samples may not be acceptable to the EPA or TNRCC.
Please call the lab for guidance.

**EFEH & ASSOCIATES**

3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

August 27, 2001

Mr. Decker McKim
REMAX
6019 Fairmont Parkway, Suite B
Pasadena, Texas 77505

Dear Mr. McKim:

Following are the results of the grab water sample submitted to our laboratory for analyses on June 29, 2001:

SAMPLE I.D.	#5
	06/29/01
	1200
LAB NO.	M-3765-6

PESTICIDES

Aldrin	<0.002
Alpha - BHC	<0.002
Beta - BHC	<0.005
Delta - BHC	<0.005
Gamma - BHC (Lindane)	<0.002
Chlordane	<0.007
4-4' - DDD	<0.006
4-4' - DDE	<0.005
4-4' - DDT	<0.005
Dieldrin	<0.01
Endosulfan I	<0.01
Endosulfan II	<0.01
Endosulfan Sulfate	<0.003
Endrin	<0.005
Endrin Aldehyde	<0.04
Endrin Ketone	<0.125
Heptachlor	<0.002
Heptachlor Epoxide	<0.002
Methoxychlor	<0.02
Toxaphene	<0.01

NOTE: Units expressed in ug/L, unless otherwise noted.

This report may not be reproduced, except in its entirety, without the express consent of EFEH & Associates. Any results or opinions expressed herein apply only to the sample tested.

EFEH & ASSOCIATES

ANALYST: J.W.

DATE & TIME ANALYZED: 07/09/01 1547

METHOD: EPA 8081

Please contact me if you have any questions concerning these results.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Edwin B. Smith, Jr.', with a long horizontal flourish extending to the right.

Edwin B. Smith, Jr., PhD

LAB NUMBER(S): M3765-1

ANALYST INITIALS: ISW

METALS QA SHEET

2
 3
 4

[illegible]

LAB NUMBER(S): M3765-2

ANALYST INITIALS: ISW

METALS QA SHEET

[illegible]

LAB NUMBER(S): M3765-3

ANALYST INITIALS: IGJ

METALS QA SHEET

8
9
10

[illegible]

LAB NUMBER(S): M3765-5

ANALYST INITIALS: TEW

METALS QA SHEET

[illegible]

LAB NUMBER(S): M3765-7

ANALYST INITIALS: IGW

METALS QA SHEET

[illegible]

LAB NUMBER(S): M93765-8

ANALYST INITIALS: 194

METALS QA SHEET

27

[illegible]

EFEH & ASSOCIATES

Total Pesticides Matrix Spike Report

Analyst Initials and Date report prepared

COMPOUND	ORIGINAL SAMPLE CONC.	SPIKE AMOUNT ADDED	MS CONC.	MS % REC.	QC LIMITS	UNIT NO.
ALDRIN	N/A	250	151	60.4%	42 - 122	142
LINDANE (g-BHC)		250	211	84.5%	32 - 127	DATE ANALYZED
4,4-DDT		500	450	90.0%	25 - 160	8/22/01
DIELDRIN		500	570	114%	36 - 146	LAB NO. OF SPIKED SAMPLE
ENDRIN		500	471	94.1%	30 - 147	D.I.
HEPTACHLOR		250	161	64.2%	34 - 111	H20

COMPOUND	SPIKE ADDED	MSD CONC.	MSD % REC.	% RPD	QC REC. LIMITS	QC RPD LIMITS
ALDRIN	250	168	67.0%	10.4%	42 - 122	30
LINDANE (g-BHC)	250	234	93.6%	10.2%	32 - 127	30
4,4-DDT	500	453	90.6%	0.66%	25 - 160	30
DIELDRIN	500	569	114%	< 0.01%	36 - 146	30
ENDRIN	500	460	92.0%	2.26%	30 - 147	30
HEPTACHLOR	250	175	70.0%	8.64%	42 - 122	30

%RECOVERY = $100 \times \frac{\text{MS or MSD Sample Result} - \text{Original Sample Result}}{\text{Amount Spiked}}$

Relative Percent Difference (RPD) = $200 \times \frac{(\text{MS \%Rec} - \text{MSD \%Rec})}{(\text{MS \%Rec} + \text{MSD \%Rec})}$



CHAIN OF CUSTODY

EFEH & ASSOCIATES
CANNOT ACCEPT VERBAL
ORDERS OR CHANGES
PLEASE FAX CHANGES
TO (281) 996-5550
ATTENTION:
SAMPLE RECEIVING

3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

Please Print. There are 10 items to fill in.

① Company: _____ Address: _____ Zip: _____ Site: _____ P.O. #: _____ Sampler: _____				④ Matrix				⑤ Analyses Requested										⑥			
② Sample Identification		Date Collected	Time Collected	③ Grab	Composite	Number of Containers	Container Size	Container Material	Matrix	Use Codes from Below	AS CHLW WTD Pest.										Remarks / Preservation
# 1		6/29	08:15	X		1	16	P	GW	X								m 3765-1			
# 2			09:15							X								" - 2			
# 3			10:30							X								" - 3			
# 4			11:20							X								" - 4			
# 5			12:00							X								" - 5			
# 5			12:00			3	32	G			X							" - 6			
# 6			12:50			1	16	P			X							" - 7			
# 7			15:10			"	16	P			X							" - 8			
#																					

⑦ Date request due: _____ / _____ / _____ MONTH DAY YEAR (Call EFEH & Associates to confirm rush needs in advance.)		Relinquished by: _____		Date	Time	Received by: _____	Date	Time
Results requested by (please circle):		_____		6/29	1806	C. Callaway		29
Fax #: _____								
Phone #: _____								
⑧ Data package options: (please circle if requested)		Matrix Codes for ④						
Specific QC Required Yes No		DW - Drinking Water						
Dry Weight F %?		WW - Waste Water						
Yes No		GW - Ground Water						
		O - Oil/Organic Liquids						
		S - Soils/Solids						
		NC - Specify in Remarks						
In case we have questions when samples arrive, EFEH & Associates should call:								
Name: _____ Phone: _____								
Send report to: _____								



RE/MAX

Southeast

Each Office Independently Owned and Operated

Decker McKim

Owner/President

6019 Fairmont Parkway, Suite B
Pasadena, Texas 77505

Office: (713) 471-3633

Office: (713) 487-3363

(281) Fax: ~~(713)~~ 487-5372

Residence: (713) 470-2359

mobile: 281-546-8682



**EFEH****& ASSOCIATES**

3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

August 27, 2001

Page	1	of	23
Initials	[Signature]		

Mr. Decker McKim
 REMAX
 6019 Fairmont Parkway, Suite B
 Pasadena, Texas 77505

Dear Mr. McKim:

Following are the results of the grab water samples submitted to our laboratory for analyses on June 29, 2001:

SAMPLE I.D.	#1 0-2' 06/29/01 0755	#1 8'-10' 06/29/01 0800	#1 H2O level 12' 06/29/01 0815
LAB NO.	M-3766-1	M-3766-2	M-3766-3
Arsenic, mg/L	4.77	1.42	<1.25
SAMPLE I.D.	#2 0-2' 06/29/01 0840	#2 8'-10' 06/29/01 0855	#2 H2O level 15' 6/29/01 0915
LAB NO.	M-3766-4	M-3766-5	M-3766-6
Arsenic, mg/L	<1.25	<1.25	2.22
SAMPLE I.D.	#3 0-2' 06/29/01 1010	#2 8'-10' 06/29/01 1020	#2 H2O level 17' 6/29/01 1030
LAB NO.	M-3766-7	M-3766-8	M-3766-9
Arsenic, mg/L	2.12	<1.25	<1.25

EFEH & ASSOCIATES

SAMPLE I.D.	#4 0-2' 06/29/01 1055	#4 8'-10' 06/29/01 1110	#4 H2O level 17' 6/29/01 1120
LAB NO.	M-3766-10	M-3766-11	M-3766-12
Arsenic, mg/L	<1.25	<1.25	<1.25
SAMPLE I.D.	#5 0-2' 06/29/01 1140	#5 8'-10' 06/29/01 1145	#5 H2O level 17' 6/29/01 1200
LAB NO.	M-3766-13	M-3766-14	M-3766-15
Arsenic, mg/L	16.45	<1.25	<1.25
SAMPLE I.D.	#6 0-2' 06/29/01 1225	#6 8'-10' 06/29/01 1235	#6 H2O level 17' 6/29/01 1250
LAB NO.	M-3766-16	M-3766-17	M-3766-18
Arsenic, mg/L	21.55	<1.25	2.82
SAMPLE I.D.	#7 0-2' 06/29/01 1425	#7 8'-10' level 10' 06/29/01 1510	
LAB NO.	M-3766-19	M-3766-20	
Arsenic, mg/L	119.5	<1.25	

% RECOVERY: 108.0

% RPD: 2.26


ANALYST: T.N.

DATE & TIME ANALYZED: 07/02/01 1357-1454

METHOD: EPA 6010

Please contact me if you have any questions concerning these results.

Sincerely,



Edwin B. Smith, Jr., PhD

EFEH & ASSOCIATES

M 3766 (1-20)
Sample Login Checklist

CASE No.: M 3766 (1-20) DATE: 7/2/01 INITIALS: cas

- | | New Client | Yes | No |
|--|------------|-----------|------------|
| 1. Is a Chain of Custody form present? | <u>YES</u> | NO | |
| 2. Is the Chain of Custody properly completed? | <u>YES</u> | NO | N/A |
| 3. Are custody seals present on the sample? | YES | <u>NO</u> | |
| If yes, are they intact? | YES | NO | <u>N/A</u> |
| 4. Are all samples tagged or labelled? | <u>YES</u> | NO | |
| Do the labels match the Chain of Custody? | <u>YES</u> | NO | N/A |
| 5. Do all shipping documents agree
<i>(i.e. number of coolers arrived vs. on tickets, if not describe below)</i> | <u>YES</u> | NO | N/A |
| 6. Condition of shipping container: Good <u>Other:</u> _____ | | | |
| Condition of Samples: Good <u>Broken</u> <u>Labels Missing/Unreadable</u> <u>Other:</u> _____ | | | |
| 8. Temperature of samples upon receipt: Solid Ice in cooler or _____ Centigrade | | | |
| 8.a. Chemical Preservations Used HNO ₃ H ₂ SO ₄ HCl NaOH NaOH/ZnAc <u>None</u> | | | |
| 8.b. Are samples properly preserved per USEPA requirements? YES <u>NO</u> | | | |
| If not, describe: | | | |

10. Sample disposal: Return to Client Lab disposal

Comments (reference checklist item number):

Client Contact for Resolution:

Name _____ Phone _____ Fax _____ Date and Time _____

Retry for Contact:

Name _____ Phone _____ Fax _____ Date and Time _____

IMPORTANT
If any boldface items are circled, the data generated from these samples may not be acceptable to the EPA or INRCC.
Please call the lab for guidance.

LAB NUMBER(S): M3766-1

ANALYST INITIALS: TGN

METALS QA SHEET

[illegible]

LAB NUMBER(S):

M3766-3

ANALYST INITIALS:

IGN

152

[illegible]

LAB NUMBER(S): M3766-4

ANALYST INITIALS: TEN

METALS QA SHEET

3

[illegible]

LAB NUMBER(S): M3766-5

ANALYST INITIALS: TEN

METALS QA SHEET

[illegible]

LAB NUMBER(S): M3766-6

ANALYST INITIALS: TEN

METALS QA SHEET

[illegible]

LAB NUMBER(S): M3766-7

ANALYST INITIALS: TEN

METALS QA SHEET

[illegible]

LAB NUMBER(S):

ANALYST INITIALS:

[illegible]

LAB NUMBER(S): M3766-10

ANALYST INITIALS: TEN

METALS QA SHEET

[illegible]

LAB NUMBER(S): M3766-11

ANALYST INITIALS: TEN

METALS QA SHEET

6
9
7

[illegible]

LAB NUMBER(S):

M3766-12

ANALYST INITIALS:

IGN

[illegible]

LAB NUMBER(S):

ANALYST INITIALS:

100

[illegible]

LAB NUMBER(S): M3766-14

ANALYST INITIALS: TEN

22

[illegible]

LAB NUMBER(S): M3766-15

ANALYST INITIALS: TEN

METALS QA SHEET

62
63
64

[illegible]

LAB NUMBER(S): M3766-16

ANALYST INITIALS: TEN

METALS QA SHEET

[illegible]

69

LAB NUMBER(S):

ANALYST INITIALS:

METALS QA SHEET

10

[illegible]

LAB NUMBER(S): M3766-18

ANALYST INITIALS: TEN

2
 3
 4

[illegible]

LAB NUMBER(S): M3766-19

ANALYST INITIALS: TEN

METALS QA SHEET

[illegible]

LAB NUMBER(S): M3766-20

ANALYST INITIALS: TEN

METALS QA SHEET

851

[illegible]



EFEH & ASSOCIATES
3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

CHAIN OF CUSTODY

EFEH & ASSOCIATES
CANNOT ACCEPT VERBAL
ORDERS OR CHANGES
PLEASE FAX CHANGES
TO (281) 996-5550
ATTENTION:
SAMPLE RECEIVING

Please Print. There are 10 items to fill in.

Company:				Matrix				Analyses Requested											
Address:				Zip:															
Site:				P.O. #:															
Sampler:																			
Sample Identification	Date Collected	Time Collected	Grab	Composite	Number of Containers	Container Size	Container Material	Use Codes From Below											Remarks / Preservation
#1 0'-2'	6/29/01	07:55	X		1	Gal	S	X											M3766-1
↓ 8'-10'		08:00						X											" - 2
↓ H2O Lev. 12'		08:15						X											" - 3
#2 0'-2'		08:40						X											" - 4
↓ 8'-10'		08:55						X											" - 5
↓ H2O Lev. 15'		09:15						X											" - 6
#3 0'-2'		10:10						X											" - 7
↓ 8'-10'		10:20						X											" - 8
↓ H2O Lev 17'		10:30						X											" - 9
#4 0'-2'		10:55						X											" - 10

Date request due: MONTH / DAY / YEAR			Relinquished by:		Date	Time	Received by:		Date	Time
(Call EFEH & Associates to confirm rush needs in advance.)					6/29	1806				2730
Results requested by (please circle):										
Fax #:										
Phone #:										

Data package options: (please circle if requested)		Matrix Codes for ④	
Specific QC Required	Yes No	DW - Drinking Water	
Dry Weight P	Yes No	WW - Waste Water	
		GW - Ground Water	
		O - Oil/Organic Liquids	
		S - Soils/Solids	
		NC - Specify in Remarks	

In case we have questions when samples arrive, EFEH & Associates should call:

Name: _____ Phone: _____

Send report to: _____



EFEH & ASSOCIATES
3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

CHAIN OF CUSTODY

EFEH & ASSOCIATES
CANNOT ACCEPT VERBAL
ORDERS OR CHANGES
PLEASE FAX CHANGES
TO (281) 996-5550
ATTENTION:
SAMPLE RECEIVING

Please Print. There are 10 items to fill in.

Company: _____				Matrix ④				Analyses Requested ⑤													
Address: _____ Zip: _____																					
Site: _____ P.O. #: _____																					
Sampler: _____																					
② Sample Identification		Date Collected	Time Collected	③ Grab	Composite	Number of Containers	Container Size	Container Material	Matrix	Use Codes From Below	⑥										
#4 8'-10'		6/29/01	11:10	X		1		FoIL	S	X	AS										Remarks / Preservation
└ H2O Lev. 17'			11:20							X											11 - 12
#5 0'-2'			11:40							X											11 - 13
└ 8'-10'			11:45							X											11 - 14
└ H2O Lev 17'			12:00							X											11 - 15
#6 0'-2'			12:25							X											11 - 16
└ 8'-10'			12:35							X											11 - 17
└ H2O Lev 17'			12:50							X											11 - 18
#7 0'-2'			14:25							X											11 - 19
└ 8'-10' H2O Lev 10'			15:10							X											11 - 20
⑦ Date request due: _____		MONTH DAY YEAR		Relinquished by: _____						Date	Time	Received by: _____						Date	Time	⑨	
(Call EFEH & Associates to confirm rush needs in advance.)				[Signature]						6/29	1806	Cattaway									
Results requested by (please circle):																					
Fax #: _____																					
Phone #: _____																					
⑧ Data package options: (please circle if requested)				Matrix Codes for ④						In case we have questions when samples arrive, EFEH & Associates should call: Name: _____ Phone: _____ Send report to: _____											
Specific QC Required Yes No				DW - Drinking Water WW - Waste Water GW - Ground Water O - Oil/Organic Liquids S - Soils/Solids NC - Specify in Remarks																	
Dry Weight F's?																					
Yes No																					



RE/MAX

Southeast

Each Office Independently Owned and Operated

Decker McKim

Owner/President

6019 Fairmont Parkway, Suite B

Pasadena, Texas 77505

Office: (713) 471-3633

Office: (713) 487-3363

(281) Fax: ~~(713)~~ 487-5372

Residence: (713) 470-2359

mobile: 281-516-8682



**EFEH****& ASSOCIATES**

August 27, 2001

3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

Page	4	of	7
Initials	[Signature]		

Mr. Decker McKim
 REMAX
 6019 Fairmont Parkway, Suite B
 Pasadena, Texas 77505

Dear Mr. McKim:

Following are the results of the grab water samples submitted to our laboratory for analyses on July 3, 2001:

SAMPLE I.D.	#8 '0-2'	#8 8'-10'	#8 H2O 22'
	07/03/01	07/03/01	07/03/01
	0915	0925	0955
LAB NO.	M-3788-1	M-3788-2	M-3788-3
Arsenic, mg/L	<1.25	<1.25	<1.25

SAMPLE I.D.	#8 H2O 22'
	07/03/01
	0955

LAB NO.	M-3788-4
---------	----------

Arsenic, mg/L	<0.05
---------------	-------

% RECOVERY: 106.8

% RPD: 3.49

ANALYST: T.N.

DATE & TIME ANALYZED: 07/05/01 1127-1441

METHOD: EPA 6010B

EFEH & ASSOCIATES

Please contact me if you have any questions concerning these results.

Sincerely,

Edwin B. Smith, Jr., PhD

EFEH & ASSOCIATES

M 3788(1-4)
Sample Login Checklist

New Client

Yes

No

CASE No.: M 3788(1-4) DATE: 7/3/01 INITIALS: CSA

1. Is a Chain of Custody form present? YES NO
2. Is the Chain of Custody properly completed? YES NO N/A
3. Are custody seals present on the sample? YES NO
- If yes, are they intact? YES NO N/A
4. Are all samples tagged or labelled? YES NO
- Do the labels match the Chain of Custody? YES NO N/A
5. Do all shipping documents agree (i.e. number of coolers arrived vs. on tickets, if not describe below) YES NO N/A
6. Condition of shipping container: Good Other: _____

Condition of Samples: Good Broken Labels Missing/Unreadable Other: _____

8. Temperature of samples upon receipt: Solid Ice in cooler or _____ Centigrade Ambient

8.a. Chemical Preservations Used HNO₃ H₂SO₄ HCl NaOH NaOH/ZnAc None

8.b. Are samples properly preserved per USEPA requirements? YES NO

If not, describe:

10. Sample disposal: Return to Client Lab disposal

Comments (reference checklist item number):

Client Contact for Resolution:

Name _____ Phone _____ Fax _____ Date and Time _____

Retry for Contact:

Name _____ Phone _____ Fax _____ Date and Time _____

IMPORTANT
If any boldface items are circled, the data generated from these samples may not be acceptable to the EPA or TNRCC.
Please call the lab for guidance.

LAB NUMBER(S): M3788-1

ANALYST INITIALS: 15nd

59

[illegible]

LAB NUMBER(S): 193788-2

ANALYST INITIALS: 154

METALS QA SHEET

[illegible]

LAB NUMBER(S): M3788-3

ANALYST INITIALS: 15W

212

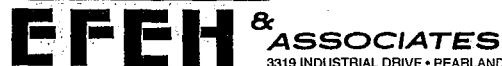
[illegible]

LAB NUMBER(S): M3788-4

ANALYST INITIALS: 19nd

METALS QA SHEET

[illegible]



3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

EFEH & ASSOCIATES
CANNOT ACCEPT VERBAL
ORDERS OR CHANGES.
PLEASE FAX CHANGES
TO (281) 996-5550
ATTENTION:
SAMPLE RECEIVING

Please Print. There are 10 items to fill in.

[illegible]

**EFEH****& ASSOCIATES**

August 27, 2001

3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

Page	1	of	3
Initials	LB		

Mr. Decker McKim
 REMAX
 6019 Fairmont Parkway, Suite B
 Pasadena, Texas 77505

Dear Mr. McKim:

Following are the results of the grab water samples submitted to our laboratory for analyses on July 16, 2001:

SAMPLE I.D.	#9 0-2'	#9 8'-10'	#9 H2O level 11'
	07/13/01	07/13/01	07/13/01
	1030	1230	1500

LAB NO.	M-3877-1	M-3877-2	M-3877-3
---------	----------	----------	----------

Arsenic, mg/L	2.22	34.25	<0.05
---------------	------	-------	-------

SAMPLE I.D.	#10 0-2'	#10 8'-10'	#10 H2O level 10'
	07/13/01	07/13/01	07/13/01
	1605	1640	1710

LAB NO.	M-3877-4	M-3877-5	M-3877-6
---------	----------	----------	----------

Arsenic, mg/L	<1.25	<0.12	<0.005
---------------	-------	-------	--------

SAMPLE I.D.	#11 0-2'	#11 8'-10'	#11 H2O level 22'
	07/13/01	07/13/01	07/13/01
	1750	1810	2020

LAB NO.	M-3766-7	M-3877-8	M-3877-9
---------	----------	----------	----------

Arsenic, mg/L	0.75	2.62	<0.005
---------------	------	------	--------

EFEH & ASSOCIATES

SAMPLE I.D.	#11 H2O level 20'-22' 07/13/01 12020	#12 0-2' 07/14/01 0730	#12 8'-10' 07/14/01 0800
LAB NO.	M-3877-10	M-3877-12	M-3877-13
Arsenic, mg/L	129.7	176.5	1.15
SAMPLE I.D.	#12 H2O level 18' 07/14/01 0940	#12 H2O level 20'-22' 07/14/01 0940	#13 0'-2' 07/14/01 1015
LAB NO.	M-3877-14	M-3766-15	M-3877-16
Arsenic, mg/L	<0.005	9.07	1.27
SAMPLE I.D.	#13 8'-10' 07/14/01 1050	#13 H2O level 18' 07/14/01 1320	#13 H2O level 16'-18' 07/14/01 1320
LAB NO.	M-3877-17	M-3877-18	M-3877-19
Arsenic, mg/L	127.7	<0.005	0.37
SAMPLE I.D.	#14 0'-2' 07/14/01 1805	#14 8'-10' 07/14/01 1425	#14 H2O level 11' 07/14/01 1600
LAB NO.	M-3877-20	M-3877-21	M-3877-22
Arsenic, mg/L	5.70	218.7	1.00
SAMPLE I.D.	#15 0'-2' 07/14/01 1610	#15 8'-10' 07/14/01 1630	#15 H2O level 16' 07/14/01 1730
LAB NO.	M-3877-23	M-3877-24	M-3877-25
Arsenic, mg/L	3.70	3.35	1.08

EFEH & ASSOCIATES

SAMPLE I.D.	#15 0'-2' 07/14/01 1610	#15 8'-10' 07/14/01 1630	#15 H2O level 16' 07/14/01 1730fss
LAB NO.	M-3877-23	M-3877-24	M-3877-25
Arsenic, mg/L	3.70	3.35	1.08
SAMPLE I.D.	#15 H2O Level 14-16' 07/14/01 1730	#16 0'-2' 07/14/01 1805	#16 8'-10' 07/14/01 1840
LAB NO.	M-3877-26	M-3877-27	M-3877-28
Arsenic, mg/L	3.00	2.15	0.25
SAMPLE I.D.	#16 H2O Level 10' 07/14/01 1940	#16 H2O level 12'-14' 07/14/01 1940	#17 0'-2' 07/14/01 2010
LAB NO.	M-3877-29	M-3877-30	M-3877-31
Arsenic, mg/L	<0.005	0.97	0.85
SAMPLE I.D.	#17 8'-10' 07/14/01 2035	#17 H2O level 11 07/14/01 2045	#18 0'-2' 07/15/01 0930
LAB NO.	M-3877-32	M-3877-33	M-3877-34
Arsenic, mg/L	<0.125	<0.005	0.32
SAMPLE I.D.	#18 8'-10' 07/15/01 1000	#18 H2O level 11 07/15/01 1100	#19 0'-2' 07/15/01 1240
LAB NO.	M-3877-35	M-3877-36	M-3877-37
Arsenic, mg/L	1.25	<0.005	38.25

EFEH & ASSOCIATES

SAMPLE I.D.	#19 H2O level 14 07/15/01 1400	#20 0'-2' 07/16/01 1025	#21 0'-2' 07/16/01 1040
LAB NO.	M-3877-38	M-3877-39	M-3877-40
Arsenic, mg/L	<0.005	2.20	0.45
SAMPLE I.D.	#22 0'-2' 07/16/01 1100	#23 0'-2' 07/16/01 1120	#24 0'-2' 07/16/01 1135
LAB NO.	M-3877-41	M-3877-42	M-3877-43
Arsenic, mg/L	0.80	2.25	9.17
SAMPLE I.D.	#25 0'-2' 07/16/01 1150	#20 07/16/01 1025	#21 07/16/01 1040
LAB NO.	M-3877-44	M-3877-45	M-3877-46
Arsenic, mg/L	0.65	<0.005	<0.005
SAMPLE I.D.	#22 07/16/01 1100	#23 07/16/01 1120	#24 07/16/01 1135
LAB NO.	M-3877-47	M-3877-48	M-3877-49
Arsenic, mg/L	<0.005	<0.005	<0.005
SAMPLE I.D.	#25 07/16/01 1150		
LAB NO.	M-3877-50		
Arsenic, mg/L	<0.005		

% RECOVERY: 100.7

% RPD: 1.95

ANALYST: T.N.

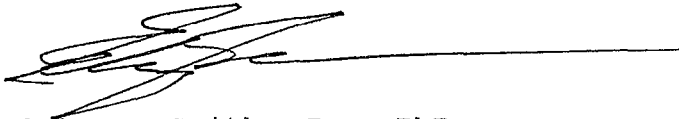
DATE & TIME ANALYZED: 07/26/01 1045-1101

METHOD: EPA 6010

EFEH & ASSOCIATES

Please contact me if you have any questions concerning these results.

Sincerely,

A handwritten signature in black ink, appearing to be 'Edwin B. Smith, Jr.', with a long horizontal line extending to the right.

Edwin B. Smith, Jr., PhD

EFEH & ASSOCIATES

m3877 (i-50)
Sample Login Checklist

CASE No.: m3877(i-50) DATE: 7/16/01 INITIALS: caa

1. Is a Chain of Custody form present? YES NO
2. Is the Chain of Custody properly completed? YES NO N/A
3. Are custody seals present on the sample? YES NO N/A
- If yes, are they intact? YES NO N/A
4. Are all samples tagged or labelled? YES NO
- Do the labels match the Chain of Custody? YES NO N/A
5. Do all shipping documents agree YES NO N/A
(i.e. number of coolers arrived vs. on tickets, if not describe below)
6. Condition of shipping container: Good Other: _____

Condition of Samples: Good Broken Labels Missing/Unreadable Other: _____

8. Temperature of samples upon receipt: Solid Ice in cooler or _____ Centigrade
- 8.a. Chemical Preservations Used HNO₃ H₂SO₄ HCl NaOH NaOH/ZnAc None
- 8.b. Are samples properly preserved per USEPA requirements? YES NO

If not, describe:

10. Sample disposal: Return to Client Lab disposal

Comments (reference checklist item number):

Client Contact for Resolution:

Name _____ Phone _____ Fax _____ Date and Time _____

Retry for Contact:

Name _____ Phone _____ Fax _____ Date and Time _____

IMPORTANT
If any boldface items are circled, the data generated from these samples may not be acceptable to the EPA or TNRCC.
Please call the lab for guidance.



EFEH & ASSOCIATES

3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

August 27, 2001

Mr. Decker McKim
REMAX
6019 Fairmont Parkway, Suite B
Pasadena, Texas 77505

Dear Mr. McKim:

Following are the results of the grab water sample submitted to our laboratory for analyses on July 16, 2001:

SAMPLE I.D. #10 H2O level 10'
07/13/01
1710

LAB NO. M-3877-11

PESTICIDES

Aldrin	<0.002
Alpha - BHC	<0.002
Beta - BHC	<0.005
Delta - BHC	<0.005
Gamma - BHC (Lindane)	<0.002
Chlordane	<0.007
4-4' - DDD	<0.006
4-4' - DDE	<0.005
4-4' - DDT	<0.005
Dieldrin	<0.01
Endosulfan I	<0.01
Endosulfan II	<0.01
Endosulfan Sulfate	<0.003
Endrin	<0.005
Endrin Aldehyde	<0.04
Endrin Ketone	<0.125
Heptachlor	0.014
Heptachlor Epoxide	<0.002
Methoxychlor	<0.02
Toxaphene	<0.01

NOTE: Units expressed in ug/L, unless otherwise noted.

This report may not be reproduced, except in its entirety, without the express consent of EFEH & Associates. Any results or opinions expressed herein apply only to the sample tested.

EFEH & ASSOCIATES

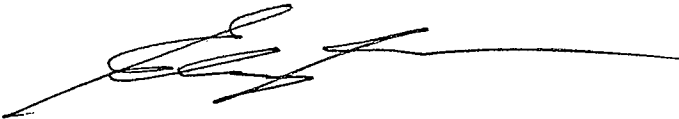
ANALYST: J.W.

DATE & TIME ANALYZED: 08/18/01 1358

METHOD: EPA 8081

Please contact me if you have any questions concerning these results.

Sincerely,

A handwritten signature in black ink, appearing to read 'Edwin B. Smith, Jr.', with a long horizontal flourish extending to the right.

Edwin B. Smith, Jr., PhD

LAB NUMBER(S): M3877-1

ANALYST INITIALS: IGN

METALS QA SHEET

[illegible]

LAB NUMBER(S): M3877-2

ANALYST INITIALS: IGN

10

[illegible]

LAB NUMBER(S): M3877-3

ANALYST INITIALS: IGN

67

[illegible]

LAB NUMBER(S): M3877-4

ANALYST INITIALS: IGN

METALS QA SHEET

三

[illegible]

LAB NUMBER(S):

M3877-5

ANALYST INITIALS:

IGN

METALS QA SHEET

[illegible]

LAB NUMBER(S): M3877-6

ANALYST INITIALS: IGN

METALS QA SHEET

[illegible]

...

LAB NUMBER(S): M3877-7

ANALYST INITIALS: IGN

25

[illegible]

LAB NUMBER(S): M3877-8

ANALYST INITIALS: IGN

三

[illegible]

LAB NUMBER(S): M3877-9

ANALYST INITIALS: JGN

METALS QA SHEET

[illegible]

62

LAB NUMBER(S): M3877-12

ANALYST INITIALS: IGN

222

[illegible]

LAB NUMBER(S): M3877-10

ANALYST INITIALS: IGN

[illegible]

LAB NUMBER(S): M3877-15

ANALYST INITIALS: GN

METALS QA SHEET

[illegible]

LAB NUMBER(S): M3877-14

ANALYST INITIALS: IGN

METALS QA SHEET

[illegible]

1
 2
 3

LAB NUMBER(S):

M3877-16

ANALYST INITIALS:

1GN

METALS QA SHEET

[illegible]

LAB NUMBER(S): M3877-17

ANALYST INITIALS: IGN

METALS QA SHEET

[illegible]

LAB NUMBER(S): M3877-19

ANALYST INITIALS: JGN

METALS QA SHEET

உ

[illegible]

LAB NUMBER(S): M3877-21

ANALYST INITIALS: IGN

METALS QA SHEET

[illegible]

232

LAB NUMBER(S): M3877-22

ANALYST INITIALS: GN

METALS QA SHEET

[illegible]

20

LAB NUMBER(S): M3877-24

ANALYST INITIALS: JGN

METALS QA SHEET

3

[illegible]

LAB NUMBER(S): M3877-25

ANALYST INITIALS: IGN

METALS QA SHEET

14

[illegible]

LAB NUMBER(S):

ANALYST INITIALS:

64
4
64

[illegible]

LAB NUMBER(S): M3877-28

ANALYST INITIALS: IGN

METALS QA SHEET

[illegible]

LAB NUMBER(S): M3877-29

ANALYST INITIALS: IGN

METALS QA SHEET

[illegible]

LAB NUMBER(S): M3877-30

ANALYST INITIALS: IGN

METALS QA SHEET

20

[illegible]

LAB NUMBER(S): M3877-31

ANALYST INITIALS: IGN

METALS QA SHEET

27

[illegible]

LAB NUMBER(S): M3877-32

ANALYST INITIALS: IGN

METALS QA SHEET

[illegible]

LAB NUMBER(S):

IALS: IGN

2490

[illegible]

LAB NUMBER(S): M3877-34

ANALYST INITIALS: IGN

10

[illegible]

LAB NUMBER(S):

ANALYST INITIALS:

LAB NUMBER(S): M3877-36

ANALYST INITIALS: IGN

METALS QA SHEET

ਲ
ਪ
ਲ

LAB NUMBER(S): M3877-38

ANALYST INITIALS: IGN

METALS QA SHEET

LAB NUMBER(S): M3877-39

ANALYST INITIALS: GR

METALS QA SHEET

[illegible]

LAB NUMBER(S): M3877-40

ANALYST INITIALS: GN

METALS QA SHEET

52

[illegible]

LAB NUMBER(S): M3877-41

ANALYST INITIALS: IGN

22

[illegible]

LAB NUMBER(S): M3877-42

ANALYST INITIALS: IGN

METALS QA SHEET

[illegible]

LAB NUMBER(S): M3877-43

ANALYST INITIALS: JGN

METALS QA SHEET

LAB NUMBER(S): M3877-44

ANALYST INITIALS: GN

25

LAB NUMBER(S): M3877-45

ANALYST INITIALS: IGN

METALS QA SHEET

LAB NUMBER(S): M3877-46

ANALYST INITIALS: IGN

63
64
65

LAB NUMBER(S):

ANALYST INITIALS:

5

[illegible]

EFEH & ASSOCIATES

Total Pesticides Matrix Spike Report

Analyst Initials and Date report prepared

[Signature] 8/25/01

COMPOUND	ORIGINAL SAMPLE CONC.	SPIKE AMOUNT ADDED	MS CONC.	MS % REC.	QC LIMITS
ALDRIN	N/A	250	151	60.4%	42 - 122
LINDANE (g-BHC)		250	211	84.5%	32 - 127
4,4-DDT		500	450	90.0%	25 - 160
DIELDRIN		500	570	114%	36 - 146
ENDRIN		500	471 408	94.1%	30 - 147
HEPTACHLOR		250	161	64.2%	34 - 111

UNIT NO.

142

DATE
ANALYZED

8/22/01

LAB NO. OF
SPIKED
SAMPLE

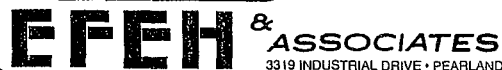
D.I.

H2O

COMPOUND	SPIKE ADDED	MSD CONC.	MSD % REC.	% RPD	QC REC. LIMITS	QC RPD LIMITS
ALDRIN	250	168	67.0%	10.4%	42 - 122	30
LINDANE (g-BHC)	250	234	93.6%	10.2%	32 - 127	30
4,4-DDT	500	453	90.6%	0.66%	25 - 160	30
DIELDRIN	500	569	114%	< 0.01%	36 - 146	30
ENDRIN	500	460	92.0%	2.26%	30 - 147	30
HEPTACHLOR	250	175	70.0%	8.64% 70.0%	42 - 122	30

%RECOVERY = $100 \times \frac{\text{MS or MSD Sample Result} - \text{Original Sample Result}}{\text{Amount Spiked}}$

Relative Percent Difference (RPD) = $200 \times \frac{(\text{MS \%Rec} - \text{MSD \%Rec})}{(\text{MS \%Rec} + \text{MSD \%Rec})}$



3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

CHAIN OF CUSTODY

EFEH & ASSOCIATES
CANNOT ACCEPT VERBAL
ORDERS OR CHANGES.
PLEASE FAX CHANGES
TO (281) 996-5550
ATTENTION:
SAMPLE RECEIVING

Please Print. There are 10 items to fill in.



EFEH & ASSOCIATES

3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

CHAIN OF CUSTODY

Page 2 of 4

EFEH & ASSOCIATES
CANNOT ACCEPT VERBAL
ORDERS OR CHANGES.
PLEASE FAX CHANGES
TO (281) 996-5550
ATTENTION:
SAMPLE RECEIVING

Please Print. There are 10 items to fill in.

Company: _____				Matrix				Analyses Requested													
Address: _____ Zip: _____				④																	
Site: 400 N. RICHEY _____ P.O. #: _____																					
Sampler: J. SASEEN																					
Sample Identification		Date Collected	Time Collected	③ Grab	Composite	Number of Containers	Container Size	Container Material	Matrix	Use Codes From Below											Remarks / Preservation
11 10 H2O Lev. 10'		7/13/01	17:10	X		2	32	G	G _W	X	X ²	M	38	77	-11		FILTER ALL H2O SAMPLERS				
#12 0'-2'		7/14/01	07:30	1		1		S		X			"		-12		BEFORE ANALYSIS				
8'-10'			08:00	1		1		S					"		-13						
H2O Lev 22'			09:40	1		16	P	G _W					"		-14						
" " 20'-22'			09:40	1		16	P	G _W					"		-15						
#13 0'-2'			10:15	1		1		S					"		-16						
8'-10'			10:50	1		1		S					"		-17						
H2O Lev 18'			13:20	1		16	P	G _W					"		-18						
" " 16'-18'			13:20	1		1		S					"		-19						
14 0'-2'			14:00	1		1		S					"		-20						

Date request due: _____ MONTH _____ DAY _____ YEAR			Relinquished by: _____		Date	Time	Received by: _____		Date	Time
(Call EFEH & Associates to confirm rush needs in advance.)			[Signature]		7/16	09:12	[Signature]			09
Results requested by (please circle):										
Fax #: _____										
Phone #: _____										

Data package options: (please circle if requested)		Matrix Codes for ④	
Specific QC Required	Yes No	DW	- Drinking Water
Dry Weight	Yes No	WW	- Waste Water
		GW	- Ground Water
		O	- Oil/Organic Liquids
		S	- Soils/Solids
		NC	- Specify in Remarks

In case we have questions when samples arrive, EFEH & Associates should call:
Name: _____ Phone: _____
Send report to: _____



EFEH & ASSOCIATES

3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

Page 5 of 6

CHAIN OF CUSTODY

EFEH & ASSOCIATES
CANNOT ACCEPT VERBAL
ORDERS OR CHANGES
PLEASE FAX CHANGES
TO (281) 996-5550
ATTENTION:
SAMPLE RECEIVING

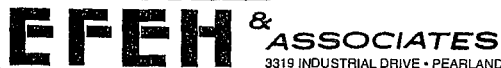
Please Print. There are 10 items to fill in.

1 Company: _____ Address: _____ Zip: _____ Site: <u>400 N. RICHEY</u> P.O. #: _____ Sampler: <u>J. SASSEEN</u>				Matrix ④		5 Analyses Requested									
Sample Identification		Date Collected	Time Collected	3 Grab	Composite	Number of Containers	Container Size	Container Material	Matrix	Use Codes From Below					Remarks / Preservation
# 20	0'-2'	7/16/01	10:25	X		1	PS	S	X		M	38	77	- 39	FILTER. PS H2O
# 21	0'-2'		10:40					S			M	38	77	- 40	SAMP. BEFORE
# 22	0'-2'		11:00					S						- 41	ANALYSIS
# 23	0'-2'		11:20					S						- 42	
# 24	0'-2'		11:35					S						- 43	
# 25	0'-2'		11:50					S						- 44	
# 20			10:25			16		GW						- 45	
# 21			10:40					GW						- 46	
# 22			11:00					GW						- 47	
# 23			11:20					GW						- 48	

7 Date request due: _____ / _____ / _____ MONTH DAY YEAR (Call EFEH & Associates to confirm rush needs in advance.)			Relinquished by: _____		Date	Time	Received by: _____		Date	Time
Results requested by (please circle):										
Fax #: _____										
Phone #: _____										

8 Data package options: (please circle if requested)		Matrix Codes for ④	
Specific QC Required Yes No		DW - Drinking Water	
Dry Weight ?		WW - Waste Water	
Yes No		GW - Ground Water	
		O - Oil/Organic Liquids	
		S - Soils/Solids	
		NC - Specify in Remarks	

In case we have questions when samples arrive, EFEH & Associates should call:
Name: _____ Phone: _____
Send report to: _____



3319 INDUSTRIAL DRIVE • PEARLAND, TEXAS 77581 • TELEPHONE (281) 996-5031 • FACSIMILE (281) 996-5550

CHAIN OF CUSTODY

EFEH & ASSOCIATES
CANNOT ACCEPT VERB/
ORDERS OR CHANGES.
PLEASE FAX CHANGES
TO (281) 996-5550
ATTENTION:
SAMPLE RECEIVING

Please Print. There are 10 items to fill in.

Reference 33:

United States Department of Agriculture. Natural Resources Conservation Service. Web Soil Survey. Map of Area of Interest: 400 N. Richey Street, Pasadena, Texas. Available at www.websoilsurvey.nrcs.usda.gov. Accessed on August 20, 2010. 1 page.

[Contact Us](#) | [Download Soils Data](#) | [Archived Soil Surveys](#) | [Soil Survey Status](#) | [Glossary](#) | [Preferences](#) | [Logout](#) | [Help](#)

A A A

[Area of Interest \(AOI\)](#) | [Soil Map](#) | [Soil Data Explorer](#) | [Shopping Cart \(Free\)](#)[Printable Version](#) | [Add to Shopping Cart](#) | ?

Search

Map Unit Legend

Harris County, Texas (TX201)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Lu	Lake Charles-Urban land complex	11.0	99.0%
VaB	Vamont clay, 1 to 4 percent slopes	0.1	1.0%
Totals for Area of Interest		11.1	100.0%

Soil Map

**Warning: Soil Map may not be valid at this scale.**

You have zoomed in beyond the scale at which the soil map for this area is intended to be used. Maps are done at a particular scale. The soil surveys that comprise your AOI were mapped at 1:20,000. The details and the level of detail shown in the resulting soil map are dependent on that map scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of maps and the accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could be shown at a more detailed scale.

Reference 34:

United States Department of Agriculture. Natural Resources Conservation Service. Map Unit Description: Harris County: Lake Charles-Urban land Complex (Lu). Available at www.websoilsurvey.nrcs.usda.gov. Accessed on August 20, 2010. 2 pages.

Harris County, Texas

Lu—Lake Charles-Urban land complex

Map Unit Setting

Elevation: 0 to 4,000 feet

Mean annual precipitation: 8 to 60 inches

Mean annual air temperature: 54 to 73 degrees F

Frost-free period: 180 to 310 days

Map Unit Composition

Lake Charles and similar soils: 50 percent

Urban land: 35 percent

Minor components: 15 percent

Description of Lake Charles

Setting

Landform: Flats

Landform position (three-dimensional): Talf

Microfeatures of landform position: Gilgai

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Clayey fluviomarine deposits of late pleistocene age

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 20 percent

Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum: 5.0

Available water capacity: High (about 10.8 inches)

Interpretive groups

Land capability classification (irrigated): 2w

Land capability (nonirrigated): 2w

Ecological site: Blackland 24-44" PZ (R150AY526TX)

Typical profile

0 to 10 inches: Clay

10 to 22 inches: Clay

22 to 74 inches: Clay

74 to 80 inches: Clay

Description of Urban Land

Interpretive groups

Land capability (nonirrigated): 8s

Typical profile

0 to 40 inches: Variable

Minor Components

Unnamed, minor components

Percent of map unit: 15 percent

Data Source Information

Soil Survey Area: Harris County, Texas

Survey Area Data: Version 10, Oct 27, 2009

Reference 35:

**Pasadena, Texas Weather. Available at www.idcide.com/weather/tx/pasadena.
Accessed on February 25, 2011. 2 pages.**



Profile

Real Estate

Weather

Hotels

Texas Weather > Pasadena Weather

Pasadena, TX Weather

Pasadena, TX climate is hot during summer when temperatures tend to be in the 80's and cool during winter when temperatures tend to be in the 50's.

The warmest month of the year is July with an average maximum temperature of 93.60 degrees Fahrenheit, while the coldest month of the year is January with an average minimum temperature of 45.20 degrees Fahrenheit.

Temperature variations between night and day tend to be fairly limited during summer with a difference that can reach 18 degrees Fahrenheit, and fairly limited during winter with an average difference of 19 degrees Fahrenheit.

The annual average precipitation at Pasadena is 53.96 Inches. Rainfall in is fairly evenly distributed throughout the year. The wettest month of the year is June with an average rainfall of 6.84 Inches.

Weather

Great traction in difficult weather conditions. Find retailers.

Wind Measurement

Wind Speed & Direction, Sonic Tower Wind Energy Airports Pollution etc.

Ads by Google

Weather Data

Current Conditions

(Updated: 7:53 AM CST FRI FEB 25 2011)

	Fair, 59°F	Humidity: 67%	Dewpoint: 48°F
		Wind Speed: N 10.4 MPH (9 KT)	Heat Index: 59°F
		Barometer: 30.03 in.	Wind Chill: 57°F

Weather Forecast

(Generated: 4:00 AM CST FRI FEB 25 2011)

	Hi: 75°F	Today: Partly cloudy. Highs in the mid 70s. Northeast winds 5 to 10 mph.
	Lo: 49°F	
	Hi: 75°F	Saturday: Partly cloudy early in the morning then becoming mostly cloudy. Areas of fog in the morning. Areas of drizzle in the morning... Then areas of drizzle and a slight chance of rain in the afternoon. Highs in the mid 70s. Southeast winds 10 to 15 mph. Chance of rain 20 percent in the afternoon.
	Lo: 65°F	
	Hi: 79°F	Sunday: Mostly cloudy. Patchy fog early in the morning. Isolated showers in the afternoon. Highs in the upper 70s. South winds 10 to 20 mph.
	Lo: 55°F	
	Hi: 71°F	Monday: Partly cloudy in the morning then becoming mostly sunny. Highs in the lower 70s.
	Lo: 45°F	
	Hi: 70°F	Tuesday: Mostly clear. Lows in the mid 40s. Highs around 70.
	Lo: 49°F	
	Hi: 71°F	Wednesday: Partly cloudy. Lows in the upper 40s. Highs in the lower 70s.
	Lo: 50°F	

Moon, Sunrise and Sunset

	Civil Twilight:	Sunrise:
--	-----------------	----------

Nearest Big Cities

(Population 100,000+)

Houston	10.5 Miles
Beaumont	71.8 Miles
Austin	157.0 Miles
Waco	172.7 Miles
Corpus Christi	186.3 Miles
Lafayette	194.6 Miles
San Antonio	198.5 Miles
Shreveport	214.2 Miles
Mesquite	228.1 Miles
Dallas	233.7 Miles

Find fares now

From

To

[About this ad](#)

Just found...


\$234[^] from Austin to Las Vegas

More Deals from Austin:

\$234[^] to Las Vegas
\$149[^] to Denver
\$261[^] to New York
\$237[^] to Los Angeles
\$352[^] to Cancun
\$249[^] to Orlando
\$219[^] to San Francisco
\$232[^] to Miami
\$188[^] to Seattle
\$241[^] to San Diego
\$635[^] to Honolulu
\$450[^] to San Juan
\$186[^] to Salt Lake City
\$255[^] to Atlanta
\$196[^] to Phoenix

[^] Fares found recently. Click for more info



	Moon Phase: Waning Crescent Moon	6:27 AM CST	6:51 AM CST
		Sunset: 6:16 PM CST	Civil Twilight: 6:40 PM CST

Normal Climate

Normal Temperatures

(HOUSTON HOBBY AP Weather station, 5.12 miles from Pasadena)

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Max °F	63.3	67.1	73.6	79.4	85.9	91.0	93.6	93.4	89.3	82.0	72.5	65.4	79.7
Mean °F	54.3	57.7	64.2	70.0	77.0	82.3	84.5	84.4	80.5	72.2	63.0	56.1	70.5
Min °F	45.2	48.2	54.8	60.6	68.1	73.5	75.3	75.3	71.6	62.3	53.4	46.7	61.3

Normal Precipitation

(HOUSTON HOBBY AP Weather station, 5.12 miles from Pasadena)

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Inch	4.25	3.01	3.19	3.46	5.11	6.84	4.36	4.54	5.62	5.26	4.54	3.78	53.96

Wireless Rainfall Monitor www.MissionCommunications.com

Low Cost, Turnkey Remote Rainfall
Measurements. Contact Us Today!

Local Weather Forecast www.WeatherBlink.com

Get Extended Forecasts, Radar Maps & More -
Download WeatherBlink!

Austin Daily Deals www.eversave.com

Save on Food, Spa, Tickets & More. Get 50-
90% off. Sign up Now!

Haynesville Shale In TX www.AskChesapeake.com/Hayne

Haynesville Shale Natural Gas Drilling and
Production Information

Ads by Google

Data sources:



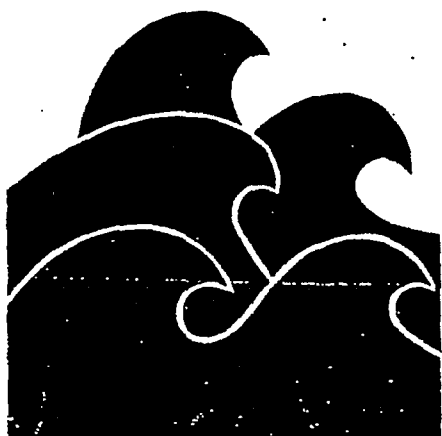
(c) Copyright 2011 IDcide All rights reserved.

Reference 36:

**Texas Department of Water Resources. Digital Models for Simulation of
Ground-Water Hydrology of the Chicot and Evangeline Aquifers Along the Gulf
Coast of Texas. Published on May 1985.**

Report 289

*DIGITAL MODELS FOR SIMULATION
OF GROUND-WATER HYDROLOGY
OF THE CHICOT AND EVANGELINE
AQUIFERS ALONG THE GULF
COAST OF TEXAS*



TEXAS DEPARTMENT OF WATER RESOURCES

May 1985

Reference 37:

**Texas Commission on Environmental Quality. Telephone Memo to the File.
Telephone conversation between Olga Salinas and the City of Pasadena. Dated
of call January 13, 2011. 1 page.**

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
TELEPHONE MEMO TO THE FILE

Please complete with typewriter or black pen.

Call to: Olga Salinas (TCEQ-R12)	Call from: RICH HELTON (713) 826-6751
Date of call: 01/13/11	File no.: 52123
Phone no.: ()	Subject: PWS SOURCE

Information for file: I CALLED MR. HELTON ON JAN 7, 2011, BUT HE WAS NOT IN THE OFFICE, SO I LEFT A MESSAGE TO RETURN MY CALL BECAUSE I HAD A QUESTION ABOUT THE PERCENTAGE OF SURFACE WATER USED FROM THE CITY OF HOUSTON. MR. HELTON RETURNED MY CALL ON JAN 13, 2011 AT 2:21 PM. MR. HELTON TOLD ME THAT THE CITY OF PASADENA (PWS 1010293) RECEIVES 99% OF THEIR WATER (PUBLIC) FROM THE CITY OF HOUSTON. MR. HELTON ALSO SAID THAT THEY USE LESS THAN 1% FROM ~~PWS~~^{GS} GROUNDWATER WELL AND THE ONLY TIME THEY ACTUALLY USE THE GROUNDWATER WELL IS DURING INSPECTIONS AND EMERGENCIES.

Signed



Reference 38:

Harris-Galveston Subsidence District. Well Data Permitted By District Within 4 Miles of 400 North Richey Street, Pasadena, Texas. January 2011. 6 pages.

Submitted from Web

Harris-Galveston Subsidence District

1660 West Bay Area Blvd.
Friendswood, TX 77546-2640
www.subsidence.org

Phone: (281) 486-1105 Fax: (281) 218-3700

COMPANY: TCEQ

PROJECT NO.: USOR

Terry Andrews,

Due to the large volume of requests for well data, it has been necessary to standardize our output format.

The enclosed listing shows all the sites on which wells have been permitted by the district within 4 mile(s) of the following point in the order of distance from that center point, (i.e. closest to farthest):

LATITUDE 29 DEG 43 MIN 6 SEC
LONGITUDE 95 DEG 13 MIN 17 SEC

Please note: It is possible that some of these sites may not actually have a producing well on them. We do not guarantee that these are the only wells within the range specified, only that these are the wells that are permitted with the district within this range. We regret that we cannot customize our output to individual specifications and hope that the enclosed list will serve your needs.

REPORT HEADINGS:

LATITUDE/LONGITUDE - (degrees, minutes, seconds)

STATE#YRDRLLD - State Map Reference (block, quad, ninth) / Year Drilled

DTFS/DEPTH - Depth To First Screen / Total Depth

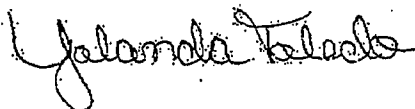
DIST/ELEV - Distance from your Reference Point / Elevation in feet above sea

APPROXIMATE XX PUMPAGE - Approximate number of gallons pumped for given year

USE - Purpose of well (Agricultural, Industrial, Other, Public supply)

DIAM - Diameter of casing in inches

Sincerely,



Yolanda Toledo
Permit System Secretary and Cashier

HGCSD - WELL RADIUS LISTING

PROJECT NO.: USOR

WELL	OWNERS - NAME	LATITUDE LONGITUDE	STATE NO YRDRLLD	DTFS DEPTH	DIST ELEV	APPROX 2009 PUMPAGE USE DIAM
10482	Taylor, Raymond	29-41-32 95-16-16	65-22-6 2007	380 400	3.83 25	0 P 4
1051	Houston, City of	29-42-15 95-15-54	65-22-6 1948	999 2365	3.13 33	0 P 24
1052	Houston, City of	29-41-48 95-15-55	65-22-6 1948	999 2530	3.34 30	0 P 24
10522	ExxonMobil Environmental Services	29-44-25 95-11-14	65-23-2 2008	450 500	2.77 25	609,990 I 6
1053	Houston, City of	29-41-27 95-15-48	65-22-6 1949	945 2095	3.42 34	0 P 24
10815	Valadez, Eduardo	29-43-5 95-12-26	65-23-2 2009	110 120	0.97 25	921 D 2
11184	Ameriforge Corporation	29-45-9 95-11-27	65-15-8 2007	600 660	3.13 25	0 I 5
11518	Pasadena, City of	29-41-25 95-13-29	65-23-4 2017	1400 1600	1.93 30	0 P 8
1162	AES Western Power, LLC	29-43-26 95-13-40	65-23-1 1965	644 776	0.58 13	0 I 16
1163	AES Western Power, LLC	29-43-28 95-13-30	65-23-1 1954	660 930	0.48 14	0 I 18
1164	AES Western Power, LLC	29-43-15 95-13-31	65-23-1 1972	660 940	0.32 19	0 I 20
1207	Pasadena, City of	29-41-2 95-12-30	65-23-5 1948	865 1565	2.51 35	46,446,125 P 20
1208	PASADENA, CITY OF	29-39-58 95-12-0	65-23-8 1957	824 1292	3.85 35	0 P 12
1209	Pasadena, City of	29-39-58 95-12-9	65-23-8 1965	820 1380	3.79 35	46,446,125 P 16
1213	Pasadena, City of	29-42-2 95-10-0	65-23-6 1966	740 1170	3.92 35	46,446,125 P 16
1215	Pasadena, City of	29-42-18 95-11-14	65-23-5 1950	999 1235	2.50 35	46,446,125 P 12
1216	PASADENA, CITY OF	29-42-44 95-12-43	65-23-1 1950	667 1262	0.77 35	0 P 12
1225	Albermarle Corporation	29-44-41 95-10-11	65-23-2 1951	309 453	3.96 10	9,210,750 I 20
1227	Albermarle Corporation	29-44-24 95-10-16	65-23-2 1951	698 1252	3.73 10	9,210,750 I 20
1228	Albermarle Corporation	29-44-24 95-10-7	65-23-2 1951	329 477	3.89 9	9,210,750 I 20

HGCSD - WELL RADIUS LISTING

PROJECT NO.: USOR

WELL	OWNERS - NAME	LATITUDE LONGITUDE	STATE NO YRDRLLD	DTFS DEPTH	DIST ELEV	APPROX 2009 PUMPAGE USE DIAM
1236	S D S BIOTECH CORPORATION	29-45-44 95-11-1	65-15-8 1952	0 0	3.95 25	0 14
1338	Pasadena Refining Sytem, Inc.	29-43-16 95-12-31	65-23-1 1969	999 1827	0.89 29	4,859,000 14
1339	Pasadena Refining Sytem, Inc.	29-43-13 95-12-19	65-23-1 1944	0 922	1.11 34	4,859,000 10
1340	CROWN CENTRAL PETROLEUM CORP.	29-43-12 95-12-34	65-23-1 1944	999 1260	0.82 34	0 12
1341	CROWN CENTRAL PETROLEUM CORP.	29-43-23 95-12-20	65-23-2 1944	680 1262	1.13 32	0 12
1342	Pasadena Refining Sytem, Inc.	29-43-16 95-12-31	65-23-2 1950	816 1274	0.89 34	4,859,000 16
1402	MOBIL CHEMICAL CO.	29-42-21 95-15-1	65-22-6 1960	812 1192	2.15 32	0 16
1403	PL Propylene LLC	29-42-14 95-15-2	65-22-6 1965	636 1154	2.22 32	304,040 16
1404	PL Propylene LLC	29-42-11 95-14-57	65-22-6 1965	662 1207	2.16 32	304,040 16
1405	PL Propylene LLC	29-42-11 95-15-6	65-22-6 1960	809 1195	2.31 32	304,040 16
1413	LYONDELL PETROCHEMICAL CO.	29-43-7 95-13-48	65-23-1 1934	999 1700	0.59 33	0 24
1414	Houston Refining, LP	29-42-36 95-14-26	65-23-1 1940	938 1192	1.42 33	11,826,000 20
1415	Houston Refining, LP	29-42-36 95-14-2	65-23-1 1942	904 1226	1.02 33	11,826,000 20
1416	Houston Refining, LP	29-42-45 95-13-56	65-23-1 1947	999 1844	0.84 35	11,826,000 20
1420	Goodyear Tire & Rubber Company	29-42-14 95-15-20	65-22-6 1955	848 1205	2.53 30	24,351,495 14
1421	Goodyear Tire & Rubber Company	29-42-17 95-15-25	65-22-6 1958	850 1205	2.60 30	24,351,495 14
1431	MANCHESTER TERMINAL COMPANY	29-43-7 95-14-54	65-23-1 1950	65 771	1.84 25	0 12
1432	Valero Refining Texas, L.P.	29-43-22 95-15-17	65-22-3 1981	970 1161	2.29 35	533,250 14
1433	Valero Refining Texas, L.P.	29-43-26 95-15-13	65-22-3 1960	955 1100	2.23 33	533,250 14
1434	HILL PETROLEUM COMPANY	29-43-30 95-15-24	65-22-3 1957	900 1182	2.45 28	0 16

HGCSD - WELL RADIUS LISTING

PROJECT NO.: USOR

WELL	OWNERS - NAME	LATITUDE LONGITUDE	STATE NO YRDRLLD	DTFS DEPTH	DIST ELEV	APPROX 2009 PUMPAGE USE DIAM
1435	Valero Refining Texas, L.P.	29-43-28 95-15-17	65-22-3 1955	922 1169	2.31 27	533,250 16
1436	Valero Refining Texas, L.P.	29-43-18 95-15-4	65-22-3 1945	916 1191	2.04 25	533,250 18
1437	HILL PETROLEUM COMPANY	29-43-20 95-15-4	65-22-3 1959	957 1168	2.04 25	0 14
1458	WSP Pipe LLC	29-45-26 95-11-32	65-15-8 1968	999 1706	3.31 35	43,601 5
1459	Armco, Inc.	29-45-23 95-11-40	65-15-8 1949	650 1102	3.18 35	0 18
1460	Armco, Inc.	29-44-57 95-12-41	65-23-1 1970	790 1711	2.21 35	0 18
1461	Armco, Inc.	29-45-23 95-12-5	65-15-8 1967	809 1692	2.93 35	0 24
1462	Greens Port Industrial Park	29-45-6 95-11-47	65-23-2 1964	532 730	2.84 35	0 22
1463	Armco, Inc.	29-45-16 95-11-41	65-15-8 1941	591 713	3.06 35	0 16
1464	Armco, Inc.	29-45-22 95-12-5	65-15-8 1957	848 1440	2.91 35	0 24
1465	Armco, Inc.	29-45-8 95-11-22	65-15-8 1944	839 1381	3.18 35	0 18
1466	Armco, Inc.	29-45-13 95-12-14	65-15-8 1944	918 1384	2.68 35	0 18
1467	ARMCO, INC.	29-45-10 95-11-50	65-15-8 1945	830 1266	2.87 43	0 18
1468	Armco, Inc.	29-44-47 95-11-44	65-23-2 1943	778 1255	2.60 20	0 18
1469	Armco, Inc.	29-44-50 95-11-29	65-23-2 1943	830 1266	2.84 20	0 18
1470	Greens Port Industrial Park	29-45-6 95-11-47	65-23-2 1943	947 1385	2.84 30	0 18
1471	IDEAL BASIC INDUSTRIES-CEMENT	29-43-45 95-14-54	65-23-1 1986	600 1804	1.98 18	0 16
1472	IDEAL BASIC INDUSTRIES-CEMENT	29-43-47 95-14-39	65-23-1 1986	600 1084	1.74 18	0 16
1473	Jacinto City, City of	29-46-4 95-14-49	65-15-7 1949	581 895	3.79 7	0 P 8
1474	Jacinto City, City of	29-46-20 95-14-31	65-15-7 1959	390 1006	3.93 7	0 P 8

HGCSD - WELL RADIUS LISTING

PROJECT NO.: USOR

WELL	OWNERS - NAME	LATITUDE LONGITUDE	STATE NO YRDRLD	DTFS DEPTH	DIST ELEV	APPROX 2009 PUMPAGE USE DIAM
1475	Jacinto City, City of	29-46-6 95-14-37	65-15-7 1954	510 780	3.73 7	0 P 8
1476	GALENA PARK, CITY OF	29-44-2 95-14-18	65-23-1 1936	597 678	1.57 28	0 P 12
1477	Galena Park, City of	29-44-2 95-14-18	65-23-1 1942	584 740	1.57 28	0 P 12
1478	Galena Park, City of	29-44-3 95-14-17	65-23-1 1949	935 1205	1.57 28	1,897,500 P 18
1479	Galena Park, City of	29-44-45 95-14-12	65-23-1 1951	607 1351	2.14 31	0 P 20
1480	Galena Park, City of	29-44-45 95-14-14	65-23-1 1959	730 975	2.16 31	1,897,500 P 16
1495	STAUFFER CHEMICAL COMPANY	29-43-15 95-16-12	65-22-3 1927	601 1146	3.32 40	0 I 16
1496	Rhodia Eco Services	29-43-9 95-16-18	65-22-3 1946	596 804	3.43 40	85,922,000 I 16
1497	Rhodia Eco Services	29-43-11 95-16-9	65-22-3 1952	916 1301	3.26 40	85,922,000 I 18
1505	MOBIL CHEMICAL CO. / PASADENA	29-44-27 95-11-27	65-23-2 1951	219 409	2.59 10	0 I 10
1506	MOBIL MINING & MINERALS CO.,PASA	29-44-25 95-11-32	65-23-2 1951	830 970	2.49 4	0 I 12
1507	Agrifos Fertilizer L.L.C.	29-44-20 95-11-46	65-23-2 1958	755 1100	2.22 6	8,052,767 I 14
1508	Agrifos Fertilizer L.L.C.	29-44-28 95-11-24	65-23-2 1961	760 1221	2.64 9	8,052,767 I 14
1509	MOBIL CHEMICAL CO. / PASADENA	29-44-28 95-11-36	65-23-2 1962	942 1357	2.46 6	0 I 14
1510	Agrifos Fertilizer L.L.C.	29-44-11 95-11-46	65-23-2 1965	999 1310	2.12 9	8,052,767 I 16
1573	GATX TERMINALS CORPORATION	29-43-39 95-12-18	65-23-2 1963	819 930	1.28 32	0 I 10
1595	Brown & Root, Inc.	29-45-4 95-10-25	65-15-8 1942	280 462	3.95 25	0 I 16
1680	PETRO-TEX CHEMICAL CORP.	29-42-6 95-15-10	65-22-6 1942	999 1710	2.42 34	0 I 20
1681	Texas Petrochemicals, LP	29-41-43 95-15-26	65-22-6 1942	856 1222	2.91 34	50,971,500 I 20
1682	Texas Petrochemicals, LP	29-41-59 95-15-9	65-22-6 1953	999 1712	2.47 34	50,971,500 I 20

HGCSD - WELL RADIUS LISTING

PROJECT NO.: USOR

WELL	OWNERS - NAME	LATITUDE LONGITUDE	STATE NO YRDRLLD	DTFS DEPTH	DIST ELEV	APPROX 2009 PUMPAGE USE DIAM
1685	Air Products, LLC	29-43-2 95-11-23	65-23-2 1973	940 1300	2.16 27	1,302,142 I 24
1686	Air Products, LLC	29-43-2 95-11-32	65-23-2 1972	942 1300	1.99 27	1,302,142 I 16
1714	Chemical Exchange Industries Inc.	29-43-55 95-13-37	65-23-1 1950	294 394	1.00 25	0 I 6
1715	WARREN PETROLEUM COMPANY	29-44-38 95-12-18	65-23-2 1962	450 608	2.07 18	0 I 6
1775	PHILLIPS PETROLEUM COMPANY	29-43-42 95-10-28	65-23-2 1941	0 620	3.27 7	0 I 8
1776	Chevron Phillips Chemical Co.	29-44-9 95-10-54	65-23-2 1953	0 1967	2.96 27	1,434,015 I 20
1777	Chevron Phillips Chemical Co.	29-44-10 95-10-53	65-23-2 1952	0 1220	2.98 27	1,434,015 I 20
1778	PHILLIPS PETROLEUM COMPANY	29-44-28 95-10-32	65-23-2 1951	0 886	3.49 25	0 I .22
1863	GATX TERMINALS CORPORATION	29-43-48 95-13-18	65-23-1 1945	617 1468	0.80 15	0 I 18
1959	South Houston, City of	29-39-42 95-13-51	65-23-7 1968	800 1212	3.92 34	25,677,600 P 14
1960	South Houston, City of	29-39-51 95-13-13	65-23-7 1951	990 1202	3.69 35	25,677,600 P 12
1961	South Houston, City of	29-39-52 95-14-24	65-23-7 1974	435 795	3.89 35	0 P 8
1962	South Houston, City of	29-39-48 95-14-26	65-23-7 1955	440 780	3.97 36	0 P 8
1965	South Houston, City of	29-39-38 95-12-45	65-23-7 1963	749 1210	3.99 35	25,677,600 P 14
1969	Patriot Storage, LLC	29-44-26 95-11-10	65-23-9 1965	862 1230	2.84 9	0 I 16
1970	Altivia Corp.	29-45-46 95-11-1	65-15-8 1951	0 1242	3.98 15	27,986,000 I 20
1989	Densimix, Inc./E & B, Inc.	29-45-27 95-11-21	65-15-8 1951	625 720	3.46 35	0 I 8
2010	Kinder Morgan Liquid Terminals, LP	29-43-57 95-12-9	65-23-2 1950	319 340	1.61 20	0 I 8
2012	DICKSON INDUSTRIAL DISTRICT	29-43-45 95-15-35	65-22-3 1942	578 758	2.72 38	0 I 12
2013	DICKSON INDUSTRIAL DISTRICT	29-44-7 95-16-32	65-22-3 1942	620 792	3.87 38	0 I 12

HGCSD - WELL RADIUS LISTING

PROJECT NO.: USOR

WELL	OWNERS - NAME	LATITUDE LONGITUDE	STATE NO YRDRLLD	DTFS DEPTH	DIST ELEV	APPROX 2009 PUMPAGE USE DIAM
2024	PARKER BROTHERS & CO., INC.	29-40-45 95-15-11	65-22-6 1951	345 370	3.43 35	0 I 4
2025	PARKER BROTHERS & CO., INC.	29-40-45 95-15-11	65-22-6 1950	338 360	3.43 35	0 I 4
2100	REDDY ICE LTD.	29-42-42 95-12-27	65-23-2 1947	350 350	1.05 25	0 I 6
2103	GATX TERMINALS CORPORATION	29-43-55 95-12-11	65-23-2 1987	535 750	1.56 48	0 I 5
2104	GATX TERMINALS CORPORATION	29-43-43 95-12-15	65-23-2 1976	471 700	1.37 45	0 I 5
2105	AMERADA HESS CORPORATION	29-44-53 95-11-56	65-23-2 1971	778 948	2.54 5	0 I 10
2260	Exxon Pipeline Company	29-42-55 95-9-52	65-23-2 1976	530 550	3.89 27	0 I 4
2349	PIONEER CONCRETE OF TEXAS, INC.	29-43-28 95-10-10	65-23-2 1974	602 638	3.57 31	0 I 6
2350	LONE STAR INDUSTRIES, INC.	29-42-21 95-15-22	65-22-6 1968	592 0	2.52 30	0 I 4
2376	LONE STAR IND., INC.-CEMENT DIV.	29-43-18 95-16-2	65-22-3 1951	930 1062	3.13 38	0 I 10
2377	LONE STAR IND., INC.-CEMENT DIV.	29-43-15 95-16-10	65-22-3 1974	915 1104	3.28 35	0 I 12
2378	LONE STAR IND., INC.-CEMENT DIV.	29-43-15 95-16-10	65-22-3 1956	710 832	3.28 35	0 I 12
2529	FIRST PASADENA STATE BANK	29-41-29 95-11-54	65-23-5 1963	586 812	2.42 35	0 P 8
2695	Brown & Root, Inc.	29-45-8 95-10-43	65-15-8 1967	828 1091	3.72 17	0 I 4
2733	AIR VENT AWNING COMPANY	29-40-25 95-13-52	65-23-4 1961	264 278	3.12 30	0 I 6
2805	STAR ENTERPRISE	29-46-12 95-12-23	65-15-8 1964	434 449	3.67 30	0 I 4
2847	HOUSTON SHELL & CONCRETE	29-43-12 95-12-31	65-23-1 1958	40 485	0.88 40	0 I 4
2848	HOUSTON SHELL & CONCRETE	29-43-12 95-12-31	65-23-1 1958	600 640	0.88 40	0 I 6
2849	HOUSTON SHELL & CONCRETE	29-43-12 95-12-31	65-23-1 1974	445 485	0.88 40	0 I 6
3149	CenterPoint Energy Houston Electric, LLC	29-43-16 95-9-54	65-23-3 1978	238 248	3.85 31	42,000 D 4

HGCSD - WELL RADIUS LISTING

PROJECT NO.: USOR

WELL	OWNERS - NAME	LATITUDE LONGITUDE	STATE NO YRDRLLD	DTFS DEPTH	DIST ELEV	APPROX 2009 PUMPAGE USE DIAM
3248	SIGMOR CORPORATION	29-46-16 95-13-33	65-15-7 1971	0 0	3.61 30	0 1 4
3425	LONE STAR IND., INC.-CEMENT DIV.	29-43-34 95-10-23	65-23-2 1972	346 356	3.34 31	0 1 4
3541	LONE STAR IND., INC.-CEMENT DIV.	29-43-34 95-10-19	65-23-2 1980	665 685	3.41 31	0 1 4
3690	South Houston, City of	29-39-50 95-14-25	65-23-7 1982	850 1200	3.93 35	25,677,600 P 16
4116	CenterPoint Energy Houston Electric, LLC	29-43-8 95-13-34	65-23-1 1986	650 660	0.32 20	42,000 D 4
4203	ARA LIVING CENTERS	29-40-26 95-12-0	65-23-5 1977	450 500	3.36 32	0 P 4
4268	AIR PRODUCTS MANUFACTURING CORP.	29-42-54 95-11-23	65-23-2 1988	18 36	2.17 26	0 1 4
4269	AIR PRODUCTS MANUFACTURING CORP.	29-42-54 95-11-23	65-23-2 1988	18 36	2.17 26	0 1 4
4270	AIR PRODUCTS MANUFACTURING CORP.	29-42-54 95-11-23	65-23-2 1988	18 36	2.17 26	0 1 4
4271	AIR PRODUCTS MANUFACTURING CORP.	29-42-54 95-11-28	65-23-2 1988	18 36	2.08 26	0 1 4
4272	AIR PRODUCTS MANUFACTURING CORP.	29-42-54 95-11-23	65-23-2 1988	18 36	2.17 26	0 1 4
4273	AIR PRODUCTS MANUFACTURING CORP.	29-42-54 95-11-23	65-23-2 1988	18 36	2.17 26	0 1 4
4274	AIR PRODUCTS MANUFACTURING CORP.	29-42-54 95-11-23	65-23-2 1988	18 36	2.17 26	0 1 4
4275	AIR PRODUCTS MANUFACTURING CORP.	29-42-54 95-11-23	65-23-2 1988	18 36	2.17 26	0 1 4
4276	AIR PRODUCTS MANUFACTURING CORP.	29-42-54 95-11-23	65-23-2 1988	18 36	2.17 26	0 1 4
4277	AIR PRODUCTS MANUFACTURING CORP.	29-42-54 95-11-23	65-23-2 1988	18 36	2.17 26	0 1 4
4376	AIR PRODUCTS MANUFACTURING CORP.	29-43-4 95-11-36	65-23-2 1990	20 35	1.91 25	0 1 4
4377	AIR PRODUCTS MANUFACTURING CORP.	29-43-4 95-11-36	65-23-2 1990	20 35	1.91 25	0 1 4
4378	AIR PRODUCTS MANUFACTURING CORP.	29-43-4 95-11-36	65-23-2 1990	20 35	1.91 25	0 1 4
4379	AIR PRODUCTS MANUFACTURING CORP.	29-43-4 95-11-36	65-23-2 1990	20 35	1.91 25	0 1 4

HGCSD - WELL RADIUS LISTING

PROJECT NO.: USOR

WELL	OWNERS - NAME	LATITUDE LONGITUDE	STATE NO YRDRLLD	DTFS DEPTH	DIST ELEV	APPROX 2009 PUMPAGE USE DIAM
4380	AIR PRODUCTS MANUFACTURING CORP.	29-43-4 95-11-36	65-23-2 1990	20 35	1.91 25	0 I 4
4381	AIR PRODUCTS MANUFACTURING CORP.	29-43-4 95-11-36	65-23-2 1990	20 35	1.91 25	0 I 4
4382	AIR PRODUCTS MANUFACTURING CORP.	29-43-4 95-11-36	65-23-2 1990	20 35	1.91 25	0 I 4
4383	AIR PRODUCTS MANUFACTURING CORP.	29-43-4 95-11-36	65-23-2 1990	20 35	1.91 25	0 I 4
4384	AIR PRODUCTS MANUFACTURING CORP.	29-43-4 95-11-36	65-23-2 1990	20 35	1.91 25	0 I 4
4385	AIR PRODUCTS MANUFACTURING CORP.	29-43-4 95-11-36	65-23-2 1990	20 35	1.91 25	0 I 4
4397	Trinity Industries, Inc.	29-45-27 95-10-49	65-15-8 1970	0 330	3.87 13	0 I 4
4398	Trinity Industries, Inc.	29-45-13 95-10-56	65-15-8 1953	0 780	3.59 10	0 I 4
4473	AES Deepwater, Inc.	29-43-0 95-13-36	65-23-1 1987	544 599	0.38 28	0 I 6
4624	AIR PRODUCTS MANUFACTURING CORP.	29-42-54 95-11-23	65-23-2 1992	50 70	2.17 26	0 I 4
4625	AIR PRODUCTS MANUFACTURING CORP.	29-42-54 95-11-23	65-23-2 1992	50 71	2.17 26	0 I 4
4626	AIR PRODUCTS MANUFACTURING CORP.	29-43-4 95-11-36	65-23-2 1992	20 44	1.91 26	0 I 4
4627	AIR PRODUCTS MANUFACTURING CORP.	29-43-4 95-11-36	65-23-2 1992	55 76	1.91 26	0 I 4
5424	Foroni Metals of Texas, Inc.	29-45-10 95-12-12	65-15-8 1987	0 447	2.65 25	14,820 D 4
5642	Ameriforge Corporation	29-45-4 95-11-25	65-15-8 19??	0 0	3.08 25	3,573,950 I 6
5835	Ameriforge Corporation	29-45-7 95-11-12	65-15-8 1987	415 435	3.29 25	3,573,950 I 4
5928	North Texas Cement Company	29-43-33 95-15-0	65-22-3 1940	400 500	2.02 25	0 P 4
6058	Greens Port Industrial Park	29-45-16 95-11-33	65-15-8 1988	292 475	3.15 25	0 I 4
6313	Boltex Mfg. Co., LP	29-45-5 95-11-41	65-15-8 1998	590 680	2.90 25	4,592,000 I 6
6314	BOLTEX MFG. CO., L.P.	29-45-1 95-11-45	65-15-8 19??	590 680	2.79 25	0 I 6

HGCSD - WELL RADIUS LISTING

PROJECT NO.: USOR

WELL	OWNERS - NAME	LATITUDE LONGITUDE	STATE NO YRDRLLD	DTFS DEPTH	DIST ELEV	APPROX 2009 PUMPAGE USE DIAM
8147	Steel & Pipe Supply Company	29-44-6 95-11-59	65-23-2 1982	0 180	1.86 25	18,000 D 3
8926	Galena Park I.S.D.	29-45-29 95-13-59	65-15-5 2002	375 400	2.82 35	97,365 O 5

Total 2009 pumpage for the above wells is 765,737,468

Reference 39:

Texas Commission on Environmental Quality. TCEQ TNET: State of Texas Utilities, Districts, and Public Drinking Water Home Page. Water System Data Sheet Report: PWS # 1011570, 1010009, 1010293, 1010312, 1010936, 1013224, 1010015, 1010294, 1011172, 1011573, 1010074, 1011108, 1010336 and 1011974.

Available at <http://agmt.tceq.state.tx.us/iwud/pws>. 72 pages.

4/7/2011

04/07/2011

11:12:22AM

Water System Data Sheet Report

Texas Commission on Environmental Quality

Water System Data Sheet

WSDSR

PWS ID	PWS Name	Central Registry RN
1011570	HOUSTON REFINING	RN100218130

Organization/Customer *	Central Registry CN
A J HURT JR INCORPORATED	CN600249585
ARCO PIPE LINE CO	CN600381867
LYONDELL-CITGO REFINING COMPANY LTD	CN602600140

* Regulatory mail will be addressed to this organization / person

Responsible Official **		Title	
MARIE HAUER		REGISTERED AGENT	
License Type		License Number	
Mailing Address:			
Street Address		C/O or Address Line 2	
PO BOX 2451		C/O JAMES B ROECHER GENERAL MANAGER	
City	State	Zip	
HOUSTON	TX	77252 - 2451	
Business Phone	Other Phone	Other Phone Type	Email
(713) 321-4111	(713) 321-6820(713) 321-4489(713) 321-4839	E-MAIL	

** Regulatory mail will be addressed to this person

PWS Contact - If different than above ***		Title	
BRUCE SUMMERS		UTILITIES AREA SUPER	
License Type		License Number	
Mailing Address for PWS Primary Contact:			
Street Address		C/O or Address Line 2	
12000 LAWDALE ST			
City	State	Zip	
HOUSTON	TX	77017 - 2740	
Business Phone	Other Phone	Other Phone Type	Email
(713) 321-5685			

4/7/2011

Water System Data Sheet Report

*** Copies of most regulatory mail will be addressed to this person

No Emergency Contact assigned to this PWS
--

Owner Type	Owner Type Options: AFFECTED COUNTIES, COUNTY, DISTRICT/AUTHORITY, EXEMPT, FEDERAL GOVERNMENT, INVESTOR, MUNICIPALITY, NATIVE AMERICAN, PRIVATE, SUBMETER \ ALLOCATION, STATE GOVERNMENT, NOT RETAIL PUBLIC UTILITIES, WATER SUPPLY CORPORATION, MISC/UNKNOWN
PRIVATE	

System Type	System Type Options: SB 361, COMMUNITY, COMMUNITY (NON-GOVERNMENT OWNED), TRANSIENT/NON-COMMUNITY, NON-PUBLIC, NON-TRANSIENT/NON-COMMUNITY
NON-TRANSIENT/NON-COMMUNITY	

Customer Class	Customer Category	Population Served	# of Connect	# of Meters	# I/C w/other PWS
NONRESIDENT	NONRESIDENTIAL	1,000	65	0	0

Total Product (MGD)	Average Daily Consump.	Total Storage (MG)	Elev. Storage (MG)	Booster Pump Cap. (MGD)	Aux.Prod.Cap. Max.Pur.Cap.(MGD)	Pressure Tank Cap.(MG)
2.045	0.054	0.060	0.000	1.296	0.000	0.00000

Activity Status	Deactivation Date	Reason
ACTIVE		

Operator Grade	Number
WATER GRADE B GROUND	1
WATER GRADE D	1

Last Survey Date	Surveyor	Survey Type	Code	Region	County	Def.Score
01/17/2008	BARRY PRICE	SURVEY		12	HARRIS	0
04/07/2005	MIKE DAVIS	SURVEY		12	HARRIS	0
09/27/2002	LAN VU	SURVEY		12	HARRIS	2

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
001	EP 0000000000000001(I)	CHLORINATOR()	15991		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)	
(No active Sources associated with this EP/Plant)	

(Inactive/Offline Sources)			
SourceNumber	Name	Status	Depth
G1011570A	8	P	1701
G1011570B	9 - W TANK FARM	E	1192

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
002	EP 000000000000002(I)	CHLORINATOR()	15992		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)	
(No active Sources associated with this EP/Plant)	

(Inactive/Offline Sources)			
SourceNumber	Name	Status	Depth
G1011570C	10 - NEAR MAIN OFFICE	E	1226

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
003	SAMPLE TAP / GULF COAST(A)	12000 LAWNDAL ST()	6238		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	423	HYPOCHLORINATION(PRE)

(Active Sources)							
Source Number	Source Name (Activity Status)		Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1011570D	11 - N OF 735(A)		O	G	1844	200	220
Drill Date		Well Data					
7/7/1947		EVANGELINE AQUIFER					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
29.713054	95.231941	25			Not a Purchased Source		

(Inactive/Offline Sources)	
(No inactive Sources associated with this EP/Plant)	

Code Explanations	
Monitoring Type Codes: (GW) GROUNDWATER , (GWP) GROUNDWATER - PURCHASED , (GUP) GROUNDWATER UNDER THE INFLUENCE - PURCHASED , (SWP) SURFACE WATER - PURCHASED , (GU) GROUNDWATER UNDER THE INFLUENCE OF SURFACE WATER , (N) NO SOURCES , (SW) SURFACE WATER	
Activity Status Codes: (A) ACTIVE , (C) CCN CANCELLED , (D) DELETED/DISSOLVED , (G) SB 361 , (I) INACTIVE , (M) MERGED/ANNEXED , (N) NON-PUBLIC , (P) PROPOSED , (U) UNKNOWN , (W) UTILITY WATER SYS XFER	
Operational Status Codes: (C) CAPPED , (D) DEMAND , (E) EMERGENCY , (F) FORMER PWS SOURCE , (I) INACTIVE PWS SYSTEM , (N) NON-DRINKING WATER , (O) OPERATING , (P) PLUGGED , (T) TEST , (Y) PWS NOT ACTIVE AND NOT EXPECTED TO BE SO	
Source Types: (G) GROUND WATER , (S) SURFACE WATER , (U) GROUND WATER UNDER THE INFLUENCE	

- End of Report -

At the time of your query this data was the most current information available from our database, which is in real time. Every effort was made to retrieve it according to your query. Thank-you for using WUD.

4/7/2011

04/07/2011

11:15:49AM

Water System Data Sheet Report

Texas Commission on Environmental Quality

WSDSR

Water System Data Sheet

PWS ID	PWS Name	Central Registry RN
1010009	CITY OF GALENA PARK	RN101389799

Organization/Customer *	Central Registry CN
CITY OF GALENA PARK	CN600338248

* Regulatory mail will be addressed to this organization / person

Responsible Official **		Title	
R P BARRETT		MAYOR	
License Type		License Number	
Mailing Address:			
Street Address		C/O or Address Line 2	
City	State	Zip	
Business Phone	Other Phone	Other Phone Type	Email

** Regulatory mail will be addressed to this person

No PWS Primary Contact assigned to this PWS
--

Emergency Contact Name ****	Emergency Phone	Emergency Email
TERRY STEVENS		
License Type	License Number	

**** This contact information will be used only in the event of an emergency

Owner Type	Owner Type Options: AFFECTED COUNTIES, COUNTY, DISTRICT/AUTHORITY, EXEMPT, FEDERAL GOVERNMENT, INVESTOR, MUNICIPALITY, NATIVE AMERICAN, PRIVATE, SUBMETER \ ALLOCATION, STATE GOVERNMENT, NOT RETAIL PUBLIC UTILITIES, WATER SUPPLY CORPORATION, MISC/UNKNOWN
MUNICIPALITY	

System Type	System Type Options: SB 361, COMMUNITY, COMMUNITY (NON-GOVERNMENT OWNED), TRANSIENT/NON-COMMUNITY, NON-PUBLIC, NON-TRANSIENT/NON-COMMUNITY
COMMUNITY	

Customer	Customer	Population	# of	# of	# I/C
----------	----------	------------	------	------	-------

4/7/2011

Water System Data Sheet Report

Class	Category	Served	Connect	Meters	w/other PWS
RESIDENTIAL	RESIDENTIAL AREA	10,592	3,308	3,093	1

Total Product (MGD)	Average Daily Consump.	Total Storage (MG)	Elev. Storage (MG)	Booster Pump Cap. (MGD)	Aux.Prod.Cap. Max.Pur.Cap.(MGD)	Pressure Tank Cap.(MG)
3.672	1.090	1.680	0.500	5.040	0.900	0.00000

Activity Status	Deactivation Date	Reason
ACTIVE		

Operator Grade	Number
WATER GRADE C GROUND	2

Last Survey Date	Surveyor	Survey Type	Code	Region	County	Def.Score
03/19/2009	BARRY PRICE	SURVEY		12	HARRIS	0
05/04/2006	BARRY PRICE	SURVEY		12	HARRIS	0
01/07/2005	LAN VU	SURVEY		12	HARRIS	0

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WJD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
001	0.18 MG GST/EVANGELINE(A)	PLANT - 304 STEWART ST()	5078		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	C	443	INHIBITOR (HEXAMETAPHOSPHATE)
	2	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)							
Source Number	Source Name (Activity Status)		Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1010009C	3 - 304 STEWART(A)		D	G	1201	1250	1200
Drill Date			Well Data				
9/14/1949			EVANGELINE AQUIFER				
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
29.734446	95.238232	34		01112901	Not a Purchased Source		
Source Number	Source Name (Activity Status)		Operational Status	Source Type	Depth	Tested GPM	Rated GPM
P1010009A	SW FROM CITY OF HOUSTON TRINITY RIVER(A)		O	S	0	0	0
Water Body			Segment Number			Surface Water Intake Type	
			()				
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
0	0	0			1010013		

(Inactive/Offline Sources)			
SourceNumber	Name	Status	Depth
G1010009A	1 - 304 STEWART	E	680
G1010009B	2 - 304 STEWART	P	740

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
002	1.0 MG GST/EVANGELINE(A)	PLANT - 1900 KEENE ST()	18934		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	401	GASEOUS CHLORINATION(POST)
	2	C	443	INHIBITOR (HEXAMETAPHOSPHATE)

(Active Sources)							
Source Number	Source Name (Activity Status)		Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1010009D	4 - 1900 KEENE ST / PLANT 2(A)		D	G	1009	1300	1300
Drill Date			Well Data				
2/0/1959			EVANGELINE AQUIFER				
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
29.746165	95.237748	33		01112901	Not a Purchased Source		
Source Number	Source Name (Activity Status)		Operational Status	Source Type	Depth	Tested GPM	Rated GPM
P1010009B	SW FROM CITY OF HOUSTON(A)		O	S	0	0	0
Water Body		Segment Number			Surface Water Intake Type		
		()					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
0	0	0			1010013		

(Inactive/Offline Sources)
(No inactive Sources associated with this EP/Plant)

Code Explanations
Monitoring Type Codes: (GW) GROUNDWATER , (GWP) GROUNDWATER - PURCHASED , (GUP) GROUNDWATER UNDER THE INFLUENCE - PURCHASED , (SWP) SURFACE WATER - PURCHASED , (GU) GROUNDWATER UNDER THE INFLUENCE OF SURFACE WATER , (N) NO SOURCES , (SW) SURFACE WATER
Activity Status Codes: (A) ACTIVE , (C) CCN CANCELLED , (D) DELETED/DISSOLVED , (G) SB 361 , (I) INACTIVE , (M) MERGED/ANNEXED , (N) NON-PUBLIC , (P) PROPOSED , (U) UNKNOWN , (V) UTILITY WATER SYS XFER
Operational Status Codes: (C) CAPPED , (D) DEMAND , (E) EMERGENCY , (F) FORMER PWS SOURCE , (I) INACTIVE PWS SYSTEM , (N) NON-DRINKING WATER , (O) OPERATING , (P) PLUGGED , (T) TEST , (Y) PWS NOT ACTIVE AND NOT EXPECTED TO BE SO
Source Types: (G) GROUND WATER , (S) SURFACE WATER , (U) GROUND WATER UNDER THE INFLUENCE

4/7/2011

Water System Data Sheet Report

- End of Report -

At the time of your query this data was the most current information available from our database, which is in real time. Every effort was made to retrieve it according to your query. Thank-you for using WUD.

4/7/2011

04/07/2011

11:18:13AM

Water System Data Sheet Report

Texas Commission on Environmental Quality

WSDSR

Water System Data Sheet

PWS ID	PWS Name	Central Registry RN
1010293	CITY OF PASADENA	RN101394237

Organization/Customer *	Central Registry CN
CITY OF PASADENA	CN600242648

* Regulatory mail will be addressed to this organization / person

Responsible Official **		Title	
JOHNNY ISBELL		MAYOR	
License Type		License Number	
Mailing Address:			
Street Address		C/O or Address Line 2	
City		State	Zip
Business Phone	Other Phone	Other Phone Type	Email

** Regulatory mail will be addressed to this person

PWS Contact - If different than above ***		Title	
RICK HELTON			
License Type		License Number	
Mailing Address for PWS Primary Contact:			
Street Address		C/O or Address Line 2	
PO BOX 672		ATTN WATER DEPT	
City		State	Zip
PASADENA		TX	77501 - 0672
Business Phone	Other Phone	Other Phone Type	Email
	(713) 477-7639(713) 475-7286	OTHER	

*** Copies of most regulatory mail will be addressed to this person

Emergency Contact Name ****	Emergency Phone	Emergency Email
RICK HELTON		jgilbert@ci.pasadena.tx.us

License Type	License Number

**** This contact information will be used only in the event of an emergency

Owner Type	Owner Type Options: AFFECTED COUNTIES, COUNTY, DISTRICT/AUTHORITY, EXEMPT, FEDERAL GOVERNMENT, INVESTOR, MUNICIPALITY, NATIVE AMERICAN, PRIVATE, SUBMETER \ ALLOCATION, STATE GOVERNMENT, NOT RETAIL PUBLIC UTILITIES, WATER SUPPLY CORPORATION, MISC/UNKNOWN
MUNICIPALITY	

System Type	System Type Options: SB 361, COMMUNITY, COMMUNITY (NON-GOVERNMENT OWNED), TRANSIENT/NON-COMMUNITY, NON-PUBLIC, NON-TRANSIENT/NON-COMMUNITY
COMMUNITY	

Customer Class	Customer Category	Population Served	# of Connect	# of Meters	# I/C w/other PWS
RESIDENTIAL	RESIDENTIAL AREA	144,174	34,285	36,105	
RESIDENTIAL	WHOLESALE (TREATED WATER)	14,082	32,576	2	2

Total Product (MGD)	Average Daily Consump.	Total Storage (MG)	Elev. Storage (MG)	Booster Pump Cap. (MGD)	Aux.Prod.Cap. Max.Pur.Cap.(MGD)	Pressure Tank Cap.(MG)
8.784	15.532	15.500	6.250	26.784	35.624	0.03000

Activity Status	Deactivation Date	Reason
ACTIVE		

Operator Grade	Number
WATER GRADE B GROUND	3
WATER GRADE C GROUND	4

Last Survey Date	Surveyor	Survey Type	Code	Region	County	Def.Score
06/09/2009	HUYEN LUU	SURVEY		12	HARRIS	0
02/21/2006	BARRY PRICE	SURVEY		12	HARRIS	9
06/26/2003	TOM LAMB	SURVEY		12	HARRIS	7

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
001	RICHEY METERING STATION / TRINITY & SAN JACINTO RIVER(A)	RICHEY RD MS()	15917		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	401	GASEOUS CHLORINATION(POST)

(Active Sources)						
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
P1010293A	SW FROM CITY OF HOUSTON - 208 RICHEY RD(A)	O	S	0	0	0
Water Body		Segment Number		Surface Water Intake Type		
		()				
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller	
0	0	0			1010013	

(Inactive/Offline Sources)			
SourceNumber	Name	Status	Depth
G1010293K	1 - CASCADE	P	0
G1010293I	1 - PASADENA	P	0
G1010293J	1 - WATER ST	P	0
G1010293H	2 - WEST SIDE	P	0

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
002	ALLEN GENOA METERING STATION/TRINITY & SAN JACINTO RIV/EWPP(I)	GENOA MS()	17960		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
(No treatments listed)				

(Active Sources)	
(No active Sources associated with this EP/Plant)	

(Inactive/Offline Sources)			
SourceNumber	Name	Status	Depth
P1010293B	SW FROM CITY OF HOUSTON - 5305 ALLEN GENOA MS / EMERGENCY	E	0

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
003	GST / GULF COAST(A)	1729 RED BLUFF RD()	5510		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)							
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1010293A	1 - 1729 RED BLUFF RD(A)	D	G	1264	700	800	
Drill Date		Well Data					
2/0/1950		EVANGELINE					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
29.704999	95.186943	36			Not a Purchased Source		

(Inactive/Offline Sources)	
(No inactive Sources associated with this EP/Plant)	

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
004	GST / GULF COAST(A)	DEEPWATER()	5503		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)							
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1010293B	2 - 3200 FLAMBOROUGH / DEEPWATER(A)	D	G	1269	950	1000	
Drill Date		Well Data					
9/29/1953		EVANGELINE					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
29.70056	95.16666	37			Not a Purchased Source		

(Inactive/Offline Sources)	
(No inactive Sources associated with this EP/Plant)	

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
005	GST / GULF COAST(A)	SYCAMORE()	5504		No		No

Train: (Unnamed)

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)							
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1010293C	3 - 6302 SYCAMORE(A)	D	G	1355	1200	1300	
Drill Date		Well Data					
6/0/1964		EVANGELINE					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
29.70056	95.16583	37			Not a Purchased Source		

(Inactive/Offline Sources)	
(No inactive Sources associated with this EP/Plant)	

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
006	GST / GULF COAST(A)	PANSY()	5509		No		No

Train: (Unnamed)

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)							
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1010293D	4 - 2700 PANSY(A)	D	G	526	500	1280	
Drill Date		Well Data					
5/15/1952		CHICOT					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
29.67056	95.14306	35			Not a Purchased Source		

(Inactive/Offline Sources)							
(No inactive Sources associated with this EP/Plant)							

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
007	GST / GULF COAST / SAN JACINTO & TRINITY RIVER(A)	WEST SIDE()	5505		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)							
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1010293E	5 - 3000 WEST SIDE(A)	D	G	1160	1350	1500	
Drill Date		Well Data					
6/0/1966		EVANGELINE					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
29.67083	95.14111	35			Not a Purchased Source		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
P1010293C	SAN JACINTO / TRINITY RIVER(A)	O	S	0	0	0	
Water Body		Segment Number			Surface Water Intake Type		
		()					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
0	0	0			1010013		

(Inactive/Offline Sources)			
SourceNumber	Name	Status	Depth
G1010293G	1 - WEST SIDE	P	0

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
008	GST / GULF COAST / SAN JACINTO & TRINITY(A)	GARNER()	5507		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)							
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1010293F	6 - 305 GARNER(A)	D	G	1565	1400	1500	
Drill Date		Well Data					
12/6/1954		EVANGELINE					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
29.67139	95.16333	42			Not a Purchased Source		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
P1010293D	SAN JACINTO / TRINITY(A)	O	S	0	0	0	
Water Body		Segment Number			Surface Water Intake Type		
		()					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
0	0	0			1010013		

(Inactive/Offline Sources)			
SourceNumber	Name	Status	Depth
G1010293L	1 - GARNER	P	0

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
009	METER STATION / TRINITY RIVER(A)	GENOA RED BLUFF M.S.()	20082		No		No

(Active Sources)						
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
P1010293E	SW FROM CITY OF HOUSTON - 3101 GENOA RED BLUFF MS(A)	O	S	0	0	0
Water Body		Segment Number			Surface Water Intake Type	
		()				
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller	
0	0	0			1010013	

(Inactive/Offline Sources)							
(No inactive Sources associated with this EP/Plant)							

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
010	GST / GULF COAST(I)	EL JARDIN()	20083		No		No

(Active Sources)							
(No active Sources associated with this EP/Plant)							

(Inactive/Offline Sources)			
SourceNumber	Name	Status	Depth
G1010293M	519 EL JARDIN DR	E	612

Sources not Associated with a Plant or Entry Point				
Source Number	Name	Activity Status	Operational Status	Source Type
P1010293F	DELETE	I	A	S

Code Explanations	
Monitoring Type Codes: (GW) GROUNDWATER , (GWP) GROUNDWATER - PURCHASED , (GUP) GROUNDWATER UNDER THE INFLUENCE - PURCHASED , (SWP) SURFACE WATER - PURCHASED , (GU) GROUNDWATER UNDER THE INFLUENCE OF SURFACE WATER , (N) NO SOURCES , (SW) SURFACE WATER	
Activity Status Codes: (A) ACTIVE , (C) CCN CANCELLED , (D) DELETED/DISSOLVED , (G) SB 361 , (I) INACTIVE , (M) MERGED/ANNEXED , (N) NON-PUBLIC , (P) PROPOSED , (U) UNKNOWN , (W) UTILITY WATER SYS XFER	
Operational Status Codes: (C) CAPPED , (D) DEMAND , (E) EMERGENCY , (F) FORMER PWS SOURCE , (I) INACTIVE PWS SYSTEM , (N) NON-DRINKING WATER , (O) OPERATING , (P) PLUGGED , (T) TEST , (Y) PWS NOT ACTIVE AND NOT EXPECTED TO BE SO	
Source Types: (G) GROUND WATER , (S) SURFACE WATER , (U) GROUND WATER UNDER THE INFLUENCE	

- End of Report -

At the time of your query this data was the most current information available from our database, which is in real time. Every effort was made to retrieve it according to your query. Thank-you for using WUD.

4/7/2011

04/07/2011

11:19:53AM

Water System Data Sheet Report

Texas Commission on Environmental Quality

Water System Data Sheet

WSDSR

PWS ID	PWS Name	Central Registry RN
1010312	CHEVRON PHILLIPS PASADENA PLASTICS COMPLEX	RN102018322

Organization/Customer *	Central Registry CN
PHILLIPS CHEMICAL COMPANY	CN601230907
CONOCOPHILLIPS PIPE LINE COMPANY	CN601674351
BP PIPELINES NORTH AMERICA INC	CN601243900

* Regulatory mail will be addressed to this organization / person

Responsible Official **		Title	
LYNN L COOK		GENERAL PARTNER	
License Type		License Number	
Mailing Address:			
Street Address		C/O or Address Line 2	
City		State	Zip
Business Phone		Other Phone	Other Phone Type
		Email	

** Regulatory mail will be addressed to this person

PWS Contact - If different than above ***		Title	
SIXTO ORTIZ			
License Type		License Number	
Mailing Address for PWS Primary Contact:			
Street Address		C/O or Address Line 2	
PO BOX 792			
City		State	Zip
PASADENA		TX	77506 - 0792
Business Phone		Other Phone	Other Phone Type
		Email	
		chapphn@cpchem.com	

*** Copies of most regulatory mail will be addressed to this person

No Emergency Contact assigned to this PWS
--

Owner Type	Owner Type Options: AFFECTED COUNTIES, COUNTY, DISTRICT/AUTHORITY, EXEMPT, FEDERAL GOVERNMENT, INVESTOR, MUNICIPALITY, NATIVE AMERICAN, PRIVATE, SUBMETER \ ALLOCATION, STATE GOVERNMENT, NOT RETAIL PUBLIC UTILITIES, WATER SUPPLY CORPORATION, MISC/UNKNOWN
PRIVATE	

System Type	System Type Options: SB 361, COMMUNITY, COMMUNITY (NON-GOVERNMENT OWNED), TRANSIENT/NON-COMMUNITY, NON-PUBLIC, NON-TRANSIENT/NON-COMMUNITY
NON-TRANSIENT/NON-COMMUNITY	

Customer Class	Customer Category	Population Served	# of Connect	# of Meters	# I/C w/other PWS
NONRESIDENT	NONRESIDENTIAL	426	1	0	1

Total Product (MGD)	Average Daily Consump.	Total Storage (MG)	Elev. Storage (MG)	Booster Pump Cap. (MGD)	Aux.Prod.Cap. Max.Pur.Cap.(MGD)	Pressure Tank Cap.(MG)
0.000	0.000	0.021	0.000	0.288	0.322	0.00440

Activity Status	Deactivation Date	Reason
ACTIVE		

Operator Grade	Number
WATER GRADE D	13

Last Survey Date	Surveyor	Survey Type	Code	Region	County	Def.Score
03/23/2007	HELEN MCCOY	SURVEY		12	HARRIS	0
02/24/2003	MELODY KIRKSEY	SURVEY		12	HARRIS	0
12/02/1998	ROSS ECHOLS	SURVEY	K11	12	HARRIS	0

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
001	0.0044 MG PT / TRINITY RIVER(A)	INTERCONNECT()	17963		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	401	GASEOUS CHLORINATION(POST)

(Active Sources)							
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
P1010312A	SW FROM PASADENA(A)	O	S	0	0	0	
Water Body		Segment Number			Surface Water Intake Type		
		()					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
0	0	0			1010293		

(Inactive/Offline Sources)	
(No inactive Sources associated with this EP/Plant)	

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
001	0.0044 MG PT / TRINITY RIVER(A)	SWTP?IWTC?()	14839		No		No

Train: A

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)
D01	STARTS AT 1			
D01	ENDS AT 1			
	2	P	240	COAGULATION
	3	P	600	RAPID MIX (OLD CODE)
	4	P	360	FLOCCULATION (OLD CODE)
	5	P	660	SEDIMENTATION
	6	P	345	FILTRATION(RAPID SAND)
	7	D	401	GASEOUS CHLORINATION(POST)
D02	STARTS AT 7			
D02	ENDS AT 7			
	8	C	740	PH ADJUSTMENT (OLD CODE)
	9	C	447	INHIBITOR (POLYPHOSPHATE)

(Active Sources)
(No active Sources associated with this EP/Plant)

(Inactive/Offline Sources)			
SourceNumber	Name	Status	Depth
S1010312A	1	A	0
S1010312B	2	A	0
G1010312A	5	A	2000
G1010312B	6	A	2000

Code Explanations
Monitoring Type Codes: (GW) GROUNDWATER , (GWP) GROUNDWATER - PURCHASED , (GUP) GROUNDWATER UNDER THE INFLUENCE - PURCHASED , (SWP) SURFACE WATER - PURCHASED , (GU) GROUNDWATER UNDER THE INFLUENCE OF SURFACE WATER , (N) NO SOURCES , (SW) SURFACE WATER
Activity Status Codes: (A) ACTIVE , (C) CCN CANCELLED , (D) DELETED/DISSOLVED , (G) SB 361 , (I) INACTIVE , (M) MERGED/ANNEXED , (N) NON-PUBLIC , (P) PROPOSED , (U) UNKNOWN , (W) UTILITY WATER SYS XFER
Operational Status Codes: (C) CAPPED , (D) DEMAND , (E) EMERGENCY , (F) FORMER PWS SOURCE , (I) INACTIVE PWS SYSTEM , (N) NON-DRINKING WATER , (O) OPERATING , (P) PLUGGED , (T) TEST , (Y) PWS

4/7/2011

Water System Data Sheet Report

NOT ACTIVE AND NOT EXPECTED TO BE SO

Source Types: (G) GROUND WATER , (S) SURFACE WATER , (U) GROUND WATER UNDER THE INFLUENCE

- End of Report -

At the time of your query this data was the most current information available from our database, which is in real time. Every effort was made to retrieve it according to your query. Thank-you for using WUD.

4/7/2011

04/07/2011

11:21:53AM

Water System Data Sheet Report

Texas Commission on Environmental Quality

WSDSR

Water System Data Sheet

PWS ID	PWS Name	Central Registry RN
1010936	AGRIFOS FERTILIZER PASADENA	RN101621944

Organization/Customer *	Central Registry CN
MOBIL MINING AND MINERALS COMPANY	CN600127252
AGRIFOS FERTILIZER LLC	CN603449265
AGRIFOS FERTILIZER INC	CN602416588

* Regulatory mail will be addressed to this organization / person

Responsible Official **		Title	
R KEITH DARNELL		OPERATIONS MANAGER	
License Type		License Number	
Mailing Address:			
Street Address		C/O or Address Line 2	
PO BOX 3447			
City		State	Zip
PASADENA		TX	77501 - 3447
Business Phone	Other Phone	Other Phone Type	Email
(713) 920-5300	(713) 920-5350(713) 920-5369	CELLULAR	

** Regulatory mail will be addressed to this person

No PWS Primary Contact assigned to this PWS

No Emergency Contact assigned to this PWS

Owner Type	Owner Type Options: AFFECTED COUNTIES, COUNTY, DISTRICT/AUTHORITY, EXEMPT, FEDERAL GOVERNMENT, INVESTOR, MUNICIPALITY, NATIVE AMERICAN, PRIVATE, SUBMETER \ ALLOCATION, STATE GOVERNMENT, NOT RETAIL PUBLIC UTILITIES, WATER SUPPLY CORPORATION, MISC/UNKNOWN
PRIVATE	

System Type	System Type Options: SB 361, COMMUNITY, COMMUNITY (NON-GOVERNMENT OWNED), TRANSIENT/NON-COMMUNITY, NON-PUBLIC, NON-TRANSIENT/NON-COMMUNITY
NON-TRANSIENT/NON-COMMUNITY	

Customer Class	Customer Category	Population Served	# of Connect	# of Meters	# I/C w/other PWS

4/7/2011

Water System Data Sheet Report

NONRESIDENT	NONRESIDENTIAL	198	18	0	0
--------------------	-----------------------	------------	-----------	----------	----------

Total Product (MGD)	Average Daily Consump.	Total Storage (MG)	Elev. Storage (MG)	Booster Pump Cap. (MGD)	Aux.Prod.Cap. Max.Pur.Cap.(MGD)	Pressure Tank Cap.(MG)
1.008	0.000	0.050	0.000	0.432	0.000	0.00090

Activity Status	Deactivation Date	Reason
ACTIVE		

Operator Grade	Number
WATER GRADE D	2

Last Survey Date	Surveyor	Survey Type	Code	Region	County	Def.Score
03/23/2007	MELODY KIRKSEY	SURVEY		12	HARRIS	0
09/24/2003	LAN VU	SURVEY		12	HARRIS	2
10/17/2001	MELODY KIRKSEY	SURVEY		12	HARRIS	2

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
001	PT / GULF COAST(A)	WELL NO 1508()	5962		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	423	HYPOCHLORINATION(PRE)

(Active Sources)						
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1010936A	5 - AKA WELL 4394 OR WELL 1508, NEAR CONTRACTOR PARKING(A)	O	G	1230	700	760
Drill Date		Well Data				
11/20/1961		EVANGELINE				
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller	
29.741388	95.190277	15			Not a Purchased Source	

(Inactive/Offline Sources)			
SourceNumber	Name	Status	Depth
G1010936D	2191	P	1377
G1010936C	3 - AKA WELL 8017, E OF WWTP	N	1325
G1010936B	4351 - NR AUTOSHP	N	1112

Code Explanations	
Monitoring Type Codes: (GW) GROUNDWATER , (GWP) GROUNDWATER - PURCHASED , (GUP) GROUNDWATER UNDER THE INFLUENCE - PURCHASED , (SWP) SURFACE WATER - PURCHASED , (GU) GROUNDWATER UNDER THE INFLUENCE OF SURFACE WATER , (N) NO SOURCES , (SW) SURFACE WATER	
Activity Status Codes: (A) ACTIVE , (C) CCN CANCELLED , (D) DELETED/DISSOLVED , (G) SB 361 , (I) INACTIVE , (M) MERGED/ANNEXED , (N) NON-PUBLIC , (P) PROPOSED , (U) UNKNOWN , (W) UTILITY WATER SYS XFER	
Operational Status Codes: (C) CAPPED , (D) DEMAND , (E) EMERGENCY , (F) FORMER PWS SOURCE , (I) INACTIVE PWS SYSTEM , (N) NON-DRINKING WATER , (O) OPERATING , (P) PLUGGED , (T) TEST , (Y) PWS NOT ACTIVE AND NOT EXPECTED TO BE SO	
Source Types: (G) GROUND WATER , (S) SURFACE WATER , (U) GROUND WATER UNDER THE INFLUENCE	

- End of Report -

4/7/2011

Water System Data Sheet Report

At the time of your query this data was the most current information available from our database, which is in real time. Every effort was made to retrieve it according to your query. Thank-you for using WUD.

4/7/2011

04/07/2011

11:23:10AM

Water System Data Sheet Report

Texas Commission on Environmental Quality

WSDSR

Water System Data Sheet

PWS ID	PWS Name	Central Registry RN
1013224	GALENA PARK ISD	RN104213012

Organization/Customer *	Central Registry CN
GALENA PARK ISD	CN600405260

* Regulatory mail will be addressed to this organization / person

Responsible Official **		Title	
MARK HENRY		SUPERINTENDENT	
License Type		License Number	
Mailing Address:			
Street Address		C/O or Address Line 2	
14705 WOODFOREST BLVD			
City	State	Zip	
HOUSTON	TX	77015 - 3259	
Business Phone	Other Phone	Other Phone Type	Email
(832) 386-1000			

** Regulatory mail will be addressed to this person

PWS Contact - If different than above ***		Title	
BURTON FOWLER		MAINTENANCE	
License Type		License Number	
Mailing Address for PWS Primary Contact:			
Street Address		C/O or Address Line 2	
1101 HOLLAND AVE			
City	State	Zip	
GALENA PARK	TX	77547 - 3111	
Business Phone	Other Phone	Other Phone Type	Email
(832) 435-9439			

*** Copies of most regulatory mail will be addressed to this person

No Emergency Contact assigned to this PWS

Owner Type	Owner Type Options: AFFECTED COUNTIES, COUNTY, DISTRICT/AUTHORITY, EXEMPT, FEDERAL GOVERNMENT, INVESTOR, MUNICIPALITY, NATIVE AMERICAN, PRIVATE, SUBMETER \ ALLOCATION, STATE GOVERNMENT, NOT RETAIL PUBLIC UTILITIES, WATER SUPPLY CORPORATION, MISC/UNKNOWN
DISTRICT/AUTHORITY	

System Type	System Type Options: SB 361, COMMUNITY, COMMUNITY (NON-GOVERNMENT OWNED), TRANSIENT/NON-COMMUNITY, NON-PUBLIC, NON-TRANSIENT/NON-COMMUNITY
NON-TRANSIENT/NON-COMMUNITY	

Customer Class	Customer Category	Population Served	# of Connect	# of Meters	# I/C w/other PWS
NONRESIDENT	NONRESIDENTIAL	60	3	0	0

Total Product (MGD)	Average Daily Consump.	Total Storage (MG)	Elev. Storage (MG)	Booster Pump Cap. (MGD)	Aux.Prod.Cap. Max.Pur.Cap.(MGD)	Pressure Tank Cap.(MG)
0.072	0.000	0.000	0.000	0.000	0.000	0.00052

Activity Status	Deactivation Date	Reason
ACTIVE		CHANGE

Operator Grade	Number
WATER GRADE D	2

Last Survey Date	Surveyor	Survey Type	Code	Region	County	Def.Score
11/14/2007	HUYEN LUU	SURVEY		12	HARRIS	0
04/30/2004	MELODY KIRKSEY	SURVEY		12	HARRIS	0

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
001	PT / GULF COAST(A)	2000 HOLLAND AVE()	20280		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	423	HYPOCHLORINATION(PRE)

(Active Sources)						
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1013224A	1 - 2000 HOLLAND AVE(A)	O	G	325	50	200
Drill Date		Well Data				
3/14/2004						
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller	
0	0	0			Not a Purchased Source	

(Inactive/Offline Sources)
(No inactive Sources associated with this EP/Plant)

Code Explanations
Monitoring Type Codes: (GW) GROUNDWATER , (GWP) GROUNDWATER - PURCHASED , (GUP) GROUNDWATER UNDER THE INFLUENCE - PURCHASED , (SWP) SURFACE WATER - PURCHASED , (GU) GROUNDWATER UNDER THE INFLUENCE OF SURFACE WATER , (N) NO SOURCES , (SW) SURFACE WATER
Activity Status Codes: (A) ACTIVE , (C) CCN CANCELLED , (D) DELETED/DISSOLVED , (G) SB 361 , (I) INACTIVE , (M) MERGED/ANNEXED , (N) NON-PUBLIC , (P) PROPOSED , (U) UNKNOWN , (W) UTILITY WATER SYS XFER
Operational Status Codes: (C) CAPPED , (D) DEMAND , (E) EMERGENCY , (F) FORMER PWS SOURCE , (I) INACTIVE PWS SYSTEM , (N) NON-DRINKING WATER , (O) OPERATING , (P) PLUGGED , (T) TEST , (Y) PWS NOT ACTIVE AND NOT EXPECTED TO BE SO
Source Types: (G) GROUND WATER , (S) SURFACE WATER , (U) GROUND WATER UNDER THE INFLUENCE

- End of Report -

At the time of your query this data was the most current information available from our database, which is in real time. Every effort was made to retrieve it according to your query. Thank-you for using WUD.

04/07/2011
12:59:14PM

Texas Commission on Environmental Quality
Water System Data Sheet

WSDSR

PWS ID	PWS Name	Central Registry RN
1010015	CITY OF JACINTO CITY	RN101385631

Organization/Customer *	Central Registry CN
CITY OF JACINTO CITY	CN600632459

* Regulatory mail will be addressed to this organization / person

Responsible Official **		Title	
CHRISTOPHER DIAZ		MAYOR	
License Type		License Number	
Mailing Address:			
Street Address		C/O or Address Line 2	
City	State	Zip	
Business Phone		Other Phone	Other Phone Type

** Regulatory mail will be addressed to this person

PWS Contact - If different than above ***		Title	
KYLE REED			
License Type		License Number	
Mailing Address for PWS Primary Contact:			
Street Address		C/O or Address Line 2	
1301 MERCURY RD			
City	State	Zip	
HOUSTON	TX	77029 - 2538	
Business Phone		Other Phone	Other Phone Type

*** Copies of most regulatory mail will be addressed to this person

Emergency Contact Name ****	Emergency Phone	Emergency Email
KYLE REED		
License Type	License Number	

**** This contact information will be used only in the event of an emergency

Owner Type	Owner Type Options: AFFECTED COUNTIES, COUNTY, DISTRICT/AUTHORITY, EXEMPT, FEDERAL GOVERNMENT, INVESTOR, MUNICIPALITY, NATIVE AMERICAN, PRIVATE, SUBMETER \ ALLOCATION, STATE GOVERNMENT, NOT RETAIL PUBLIC UTILITIES, WATER SUPPLY CORPORATION, MISC/UNKNOWN
MUNICIPALITY	

System Type	System Type Options: SB 361, COMMUNITY, COMMUNITY (NON-GOVERNMENT OWNED), TRANSIENT/NON-COMMUNITY, NON-PUBLIC, NON-TRANSIENT/NON-COMMUNITY
COMMUNITY	

Customer Class	Customer Category	Population Served	# of Connect	# of Meters	# I/C w/other PWS
RESIDENTIAL	RESIDENTIAL AREA	9,603	3,201	2,779	1

Total Product (MGD)	Average Daily Consump.	Total Storage (MG)	Elev. Storage (MG)	Booster Pump Cap. (MGD)	Aux.Prod.Cap. Max.Pur.Cap.(MGD)	Pressure Tank Cap.(MG)
2.462	0.746	1.300	0.300	2.880	1.000	0.00000

Activity Status	Deactivation Date	Reason
ACTIVE		

Operator Grade	Number
WATER GRADE B SURFACE	1
WATER GRADE C GROUND	1

Last Survey Date	Surveyor	Survey Type	Code	Region	County	Def.Score
03/24/2009	BARRY PRICE	SURVEY		12	HARRIS	0
04/07/2006	HUYEN LUU	SURVEY		12	HARRIS	14
08/19/2004	LAN VU	SURVEY		12	HARRIS	2

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
001	SAMPLE TAP AT GST/GULF COAST (A)	PLANT - 10429 1/2 MARKET ST()	5272		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)							
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1010015A	2 - 10301 MARKET ST(A)	D	G	894	750	750	
Drill Date		Well Data					
7/23/1949		CHICOT					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
29.771944	95.241668	38			Not a Purchased Source		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1010015B	4 - 10525 LA CROSS(A)	D	G	1010	960	1000	
Drill Date		Well Data					
6/17/1959		CHICOT					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
29.768054	95.246948	36			Not a Purchased Source		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
P1010015A	SW FROM CITY OF HOUSTON(A)	O	S	0	0	0	
Water Body		Segment Number			Surface Water Intake Type		
		()					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
0	0	0			1010013		

(Inactive/Offline Sources)
(No inactive Sources associated with this EP/Plant)

Code Explanations
Monitoring Type Codes: (GW) GROUNDWATER , (GWP) GROUNDWATER - PURCHASED , (GUP) GROUNDWATER UNDER THE INFLUENCE - PURCHASED , (SWP) SURFACE WATER - PURCHASED , (GU) GROUNDWATER UNDER THE INFLUENCE OF SURFACE WATER , (N) NO SOURCES , (SW) SURFACE WATER

Activity Status Codes: (A) ACTIVE , (C) CCN CANCELLED , (D) DELETED/DISSOLVED , (G) SB 361 , (I) INACTIVE , (M) MERGED/ANNEXED , (N) NON-PUBLIC , (P) PROPOSED , (U) UNKNOWN , (W) UTILITY WATER SYS XFER

Operational Status Codes: (C) CAPPED , (D) DEMAND , (E) EMERGENCY , (F) FORMER PWS SOURCE , (I) INACTIVE PWS SYSTEM , (N) NON-DRINKING WATER , (O) OPERATING , (P) PLUGGED , (T) TEST , (Y) PWS NOT ACTIVE AND NOT EXPECTED TO BE SO

Source Types: (G) GROUND WATER , (S) SURFACE WATER , (U) GROUND WATER UNDER THE INFLUENCE

- End of Report -

At the time of your query this data was the most current information available from our database, which is in real time. Every effort was made to retrieve it according to your query. Thank-you for using WUD.

4/7/2011

04/07/2011


11:25:03AM

Water System Data Sheet Report

Texas Commission on Environmental Quality

WSDSR

Water System Data Sheet

PWS ID	PWS Name	Central Registry RN
1010294	CITY OF SOUTH HOUSTON 	RN101395358

Organization/Customer *	Central Registry CN
CITY OF SOUTH HOUSTON	CN600548390

* Regulatory mail will be addressed to this organization / person

Responsible Official **		Title	
JOE SOTO		MAYOR	
License Type		License Number	
Mailing Address:			
Street Address		C/O or Address Line 2	
PO BOX 238		C/O ALFRED GONZALES SUPERINTENDENT	
City	State	Zip	
SOUTH HOUSTON	TX	77587 - 0238	
Business Phone	Other Phone	Other Phone Type	Email
(713) 947-7700			

** Regulatory mail will be addressed to this person

PWS Contact - If different than above ***		Title	
ALFRED GONZALES			
License Type		License Number	
Mailing Address for PWS Primary Contact:			
Street Address		C/O or Address Line 2	
City	State	Zip	
Business Phone	Other Phone	Other Phone Type	Email

*** Copies of most regulatory mail will be addressed to this person

No Emergency Contact assigned to this PWS

Owner Type	Owner Type Options: AFFECTED COUNTIES, COUNTY, DISTRICT/AUTHORITY, EXEMPT, FEDERAL GOVERNMENT, INVESTOR, MUNICIPALITY, NATIVE AMERICAN, PRIVATE, SUBMETER \ ALLOCATION, STATE GOVERNMENT, NOT RETAIL PUBLIC UTILITIES, WATER SUPPLY CORPORATION, MISC/UNKNOWN
MUNICIPALITY	

System Type	System Type Options: SB 361, COMMUNITY, COMMUNITY (NON-GOVERNMENT OWNED), TRANSIENT/NON-COMMUNITY, NON-PUBLIC, NON-TRANSIENT/NON-COMMUNITY
COMMUNITY	

Customer Class	Customer Category	Population Served	# of Connect	# of Meters	# I/C w/other PWS
RESIDENTIAL	RESIDENTIAL AREA	13,116	4,372	4,372	1

Total Product (MGD)	Average Daily Consump.	Total Storage (MG)	Elev. Storage (MG)	Booster Pump Cap. (MGD)	Aux.Prod.Cap. Max.Pur.Cap.(MGD)	Pressure Tank Cap.(MG)
5.940	1.736	4.687	1.000	11.952	0.000	0.09000

Activity Status	Deactivation Date	Reason
ACTIVE		

Operator Grade	Number
WATER GRADE C GROUND	2
WATER GRADE D	1

Last Survey Date	Surveyor	Survey Type	Code	Region	County	Def.Score
04/02/2008	ERESHA DESILVA	SURVEY		12	HARRIS	9
03/01/2005	MIKE DAVIS	SURVEY		12	HARRIS	2
02/11/2003	MIKE DAVIS	SURVEY		12	HARRIS	7

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
001	EP 001 / TRINITY RIVER(D)	CITY OF HOUSTON METER()	17961		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)
(No active Sources associated with this EP/Plant)

(Inactive/Offline Sources)
(No inactive Sources associated with this EP/Plant)

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WJD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
002	EP 002 / SAN JACINTO RIV(D)	(No plants for this EP)			No		No

(Active Sources)
(No active Sources associated with this EP/Plant)

(Inactive/Offline Sources)
(No inactive Sources associated with this EP/Plant)

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
003	1 MG GST / GULF COAST, TRINITY/SAN JACINTO RIVER(A)	CITY OF HOUSTON METER()	17961		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)
(No active Sources associated with this EP/Plant)

(Inactive/Offline Sources)
(No inactive Sources associated with this EP/Plant)

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
003	1 MG GST / GULF COAST, TRINITY/SAN JACINTO RIVER(A)	PLANT 1 - 631 VIRGINIA()	5514		No		No

Train: (Unnamed)

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)							
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1010294D	1 - 631 VIRGINIA(A)	O	G	1325	550	1100	
Drill Date		Well Data					
0/0/0							
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
29.66389	95.21972	0			Not a Purchased Source		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
P1010294A	CITY OF HOUSTON SW(A)	O	S	0	0	0	
Water Body		Segment Number			Surface Water Intake Type		
		0					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
0	0	0			1010013		

(Inactive/Offline Sources)	
(No inactive Sources associated with this EP/Plant)	

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WJD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
004	0.57MG GST / GULF COAST, TRINITY/SAN JACINTO RIVER(A)	CITY OF HOUSTON METER()	17961		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)
(No active Sources associated with this EP/Plant)

(Inactive/Offline Sources)
(No inactive Sources associated with this EP/Plant)

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
004	0.57MG GST / GULF COAST, TRINITY/SAN JACINTO RIVER(A)	PLANT 2 - 902 SPENCER()	5513		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)							
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1010294A	2 - 902 SPENCER(A)	O	G	1203	700	600	
Drill Date		Well Data					
3/29/1963							
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
29.66028	95.2125	36			Not a Purchased Source		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
P1010294A	CITY OF HOUSTON SW(A)	O	S	0	0	0	
Water Body		Segment Number			Surface Water Intake Type		
		()					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
0	0	0			1010013		

(Inactive/Offline Sources)	
(No inactive Sources associated with this EP/Plant)	

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
005	0.667MG GST / GULF COAST, TRINITY/SAN JACINTO RIVER(A)	CITY OF HOUSTON METER()	17961		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)
(No active Sources associated with this EP/Plant)

(Inactive/Offline Sources)
(No inactive Sources associated with this EP/Plant)

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WJD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
005	0.667MG GST / GULF COAST, TRINITY/SAN JACINTO RIVER(A)	PLANT 4 - 1401 AVE G()	5511		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)							
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1010294B	4 - 1401 AVE G(A)	O	G	1205	1050	900	
Drill Date		Well Data					
7/12/1982							
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
29.66389	95.23972	35			Not a Purchased Source		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
P1010294A	CITY OF HOUSTON SW(A)	O	S	0	0	0	
Water Body		Segment Number			Surface Water Intake Type		
		0					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
0	0	0			1010013		

(Inactive/Offline Sources)	
(No inactive Sources associated with this EP/Plant)	

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
006	0.1MG GST / GULF COAST, TRINITY/SAN JACINTO RIVER(A)	CITY OF HOUSTON METER()	17961		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)
(No active Sources associated with this EP/Plant)

(Inactive/Offline Sources)
(No inactive Sources associated with this EP/Plant)

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
006	0.1MG GST / GULF COAST, TRINITY/SAN JACINTO RIVER(A)	PLANT 5 - 351 TEXAS()	5512		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)							
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1010294C	5 - 351 TEXAS AVE(A)	O	G	1203	1150	900	
Drill Date		Well Data					
4/22/1958							
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
29.65278	95.2325	0			Not a Purchased Source		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
P1010294A	CITY OF HOUSTON SW(A)	O	S	0	0	0	
Water Body		Segment Number			Surface Water Intake Type		
		()					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
0	0	0			1010013		

(Inactive/Offline Sources)	
(No inactive Sources associated with this EP/Plant)	

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
007	0.45MG GST / GULF COAST, TRINITY/SAN JACINTO RIVER(A)	CITY OF HOUSTON METER()	17961		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)
(No active Sources associated with this EP/Plant)

(Inactive/Offline Sources)
(No inactive Sources associated with this EP/Plant)

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
007	0.45MG GST / GULF COAST, TRINITY/SAN JACINTO RIVER(A)	PLANT 3 - 804 NEVADA()	5515		No		No

Train: (Unnamed)

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)							
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1010294E	3 - 804 NEVADA(A)	O	G	1413	675	600	
Drill Date		Well Data					
9/27/1968							
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
29.66139	95.23055	30			Not a Purchased Source		
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
P1010294A	CITY OF HOUSTON SW(A)	O	S	0	0	0	
Water Body		Segment Number			Surface Water Intake Type		
		(I)					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
0	0	0			1010013		

(Inactive/Offline Sources)
(No inactive Sources associated with this EP/Plant)

Code Explanations
Monitoring Type Codes: (GW) GROUNDWATER , (GWP) GROUNDWATER - PURCHASED , (GUP) GROUNDWATER UNDER THE INFLUENCE - PURCHASED , (SWP) SURFACE WATER - PURCHASED , (GU) GROUNDWATER UNDER THE INFLUENCE OF SURFACE WATER , (N) NO SOURCES , (SW) SURFACE WATER
Activity Status Codes: (A) ACTIVE , (C) CCN CANCELLED , (D) DELETED/DISSOLVED , (G) SB 361 , (I) INACTIVE , (M) MERGED/ANNEXED , (N) NON-PUBLIC , (P) PROPOSED , (U) UNKNOWN , (W) UTILITY WATER SYS XFER
Operational Status Codes: (C) CAPPED , (D) DEMAND , (E) EMERGENCY , (F) FORMER PWS SOURCE , (I) INACTIVE PWS SYSTEM , (N) NON-DRINKING WATER , (O) OPERATING , (P) PLUGGED , (T) TEST , (Y) PWS NOT ACTIVE AND NOT EXPECTED TO BE SO
Source Types: (G) GROUND WATER , (S) SURFACE WATER , (U) GROUND WATER UNDER THE INFLUENCE

4/7/2011

Water System Data Sheet Report

- End of Report -

At the time of your query this data was the most current information available from our database, which is in real time. Every effort was made to retrieve it according to your query. Thank-you for using WUD.

4/7/2011

04/07/2011

11:26:28AM

Water System Data Sheet Report

Texas Commission on Environmental Quality

WSDSR

Water System Data Sheet

PWS ID	PWS Name	Central Registry RN
1011172	ALBEMARLE HOUSTON PLANT	RN100218247

Organization/Customer *	Central Registry CN
ALBEMARLE CORPORATION	CN600129589

* Regulatory mail will be addressed to this organization / person

Responsible Official **		Title	
DOUGLAS K THOMPSON		ENVIRONMENTAL MANAGER	
License Type		License Number	
Mailing Address:			
Street Address		C/O or Address Line 2	
PO BOX 2500			
City	State	Zip	
PASADENA	TX	77501 - 2500	
Business Phone	Other Phone	Other Phone Type	Email
(713) 740-1710	(713) 740-9900(713) 740-1802	CELLULAR	

** Regulatory mail will be addressed to this person

No PWS Primary Contact assigned to this PWS

No Emergency Contact assigned to this PWS

Owner Type	Owner Type Options: AFFECTED COUNTIES, COUNTY, DISTRICT/AUTHORITY, EXEMPT, FEDERAL GOVERNMENT, INVESTOR, MUNICIPALITY, NATIVE AMERICAN, PRIVATE, SUBMETER \ ALLOCATION, STATE GOVERNMENT, NOT RETAIL PUBLIC UTILITIES, WATER SUPPLY CORPORATION, MISC/UNKNOWN
PRIVATE	

System Type	System Type Options: SB 361, COMMUNITY, COMMUNITY (NON-GOVERNMENT OWNED), TRANSIENT/NON-COMMUNITY, NON-PUBLIC, NON-TRANSIENT/NON-COMMUNITY
NON-TRANSIENT/NON-COMMUNITY	

Customer Class	Customer Category	Population Served	# of Connect	# of Meters	# I/C w/other PWS
NONRESIDENT	NONRESIDENTIAL	775	6	0	0

4/7/2011

Water System Data Sheet Report

Total Product (MGD)	Average Daily Consump.	Total Storage (MG)	Elev. Storage (MG)	Booster Pump Cap. (MGD)	Aux.Prod.Cap. Max.Pur.Cap.(MGD)	Pressure Tank Cap.(MG)
0.396	0.000	0.009	0.000	1.728	0.000	0.00000

Activity Status	Deactivation Date	Reason
ACTIVE		

Operator Grade	Number
WATER GRADE A	1
WATER GRADE C GROUND	1

Last Survey Date	Surveyor	Survey Type	Code	Region	County	Def.Score
03/25/2008	AMY BRANOM	SURVEY		12	HARRIS	0
08/31/2004	LAN VU	SURVEY		12	HARRIS	7
04/15/2002	LAN VU	SURVEY		12	HARRIS	4

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
001	0.0095MG GST / CHICOT(A)	CENTRAL PLANT AREA - 2500 N SOUTH ST()	6067		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	C	447	INHIBITOR (POLYPHOSPHATE)
	2	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)						
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1011172A	3A - CENTRAL AREA OF PLANT(A)	O	G	476	275	1300
Drill Date		Well Data				
5/22/1951		CHICOT AQUIFER				
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller	
29.740278	95.168891	20			Not a Purchased Source	

(Inactive/Offline Sources)			
SourceNumber	Name	Status	Depth
G1011172B	2L - NE AREA OF PLANT	E	1740
G1011172D	4L - NE AREA OF PLANT	E	1252
G1011172C	5A - N AREA OF PLANT	F	453

Code Explanations	
Monitoring Type Codes: (GW) GROUNDWATER , (GWP) GROUNDWATER - PURCHASED , (GUP) GROUNDWATER UNDER THE INFLUENCE - PURCHASED , (SWP) SURFACE WATER - PURCHASED , (GU) GROUNDWATER UNDER THE INFLUENCE OF SURFACE WATER , (N) NO SOURCES , (SW) SURFACE WATER	
Activity Status Codes: (A) ACTIVE , (C) CCN CANCELLED , (D) DELETED/DISSOLVED , (G) SB 361 , (I) INACTIVE , (M) MERGED/ANNEXED , (N) NON-PUBLIC , (P) PROPOSED , (U) UNKNOWN , (W) UTILITY WATER SYS XFER	
Operational Status Codes: (C) CAPPED , (D) DEMAND , (E) EMERGENCY , (F) FORMER PWS SOURCE , (I) INACTIVE PWS SYSTEM , (N) NON-DRINKING WATER , (O) OPERATING , (P) PLUGGED , (T) TEST , (Y) PWS NOT ACTIVE AND NOT EXPECTED TO BE SO	
Source Types: (G) GROUND WATER , (S) SURFACE WATER , (U) GROUND WATER UNDER THE INFLUENCE	

- End of Report -

4/7/2011

Water System Data Sheet Report

At the time of your query this data was the most current information available from our database, which is in real time. Every effort was made to retrieve it according to your query. Thank-you for using WUD.

04/04/2011
11:08:32AM**Texas Commission on Environmental Quality**
Water System Data Sheet

WSDSR

PWS ID	PWS Name	Central Registry RN
1011974	BASF CORPORATION PASADENA PLANT	RN100225689

Organization/Customer *	Central Registry CN
BASF CORPORATION	CN600124895
SUNOCO CHEMICALS CORPORATION	CN601580889
SUNOCO INC R&M	CN601179914

* Regulatory mail will be addressed to this organization / person

Responsible Official **		Title	
REX A SHUFF		EHS	
License Type		License Number	
Mailing Address:			
Street Address		C/O or Address Line 2	
City	State	Zip	
Business Phone	Other Phone	Other Phone Type	Email

** Regulatory mail will be addressed to this person

PWS Contact - If different than above ***		Title	
SCOTT SMETTERS		OPERATIONS ENGINEER	
License Type		License Number	
Mailing Address for PWS Primary Contact:			
Street Address		C/O or Address Line 2	
City	State	Zip	
Business Phone	Other Phone	Other Phone Type	Email

*** Copies of most regulatory mail will be addressed to this person

No Emergency Contact assigned to this PWS

Owner Type	Owner Type Options: AFFECTED COUNTIES, COUNTY, DISTRICT/AUTHORITY, EXEMPT, FEDERAL GOVERNMENT, INVESTOR, MUNICIPALITY, NATIVE AMERICAN, PRIVATE, SUBMETER \ ALLOCATION, STATE GOVERNMENT, NOT RETAIL PUBLIC UTILITIES, WATER SUPPLY CORPORATION, MISC/UNKNOWN
PRIVATE	

System Type	System Type Options: SB 361, COMMUNITY, COMMUNITY (NON-GOVERNMENT OWNED), TRANSIENT/NON-COMMUNITY, NON-PUBLIC, NON-TRANSIENT/NON-COMMUNITY
NON-TRANSIENT/NON-COMMUNITY	

Customer Class	Customer Category	Population Served	# of Connect	# of Meters	# I/C w/other PWS
NONRESIDENT	NONRESIDENTIAL	110	3	0	0

Total Product (MGD)	Average Daily Consump.	Total Storage (MG)	Elev. Storage (MG)	Booster Pump Cap. (MGD)	Aux.Prod.Cap. Max.Pur.Cap.(MGD)	Pressure Tank Cap.(MG)
0.144	0.000	0.005	0.000	0.000	0.000	0.00031

Activity Status	Deactivation Date	Reason
ACTIVE		

Operator Grade	Number
WATER GRADE D	4

Last Survey Date	Surveyor	Survey Type	Code	Region	County	Def.Score
02/13/2008	LETICIA DELEON	SURVEY		12	HARRIS	0
08/24/2004	LAN VU	SURVEY		12	HARRIS	0
04/15/2002	LAN VU	SURVEY		12	HARRIS	2

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
001	0.005 MG GST / CHICOT(A)	4403 HWY 225 - NW OF COOLING TOWER()	6498		No		No

Train: (Unnamed)

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	403	GASEOUS CHLORINATION(PRE)

(Active Sources)							
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1011974A	1 - NW OF COOLING TOWER(A)	O	G	490	100	110	
Drill Date		Well Data					
9/13/1982		CHICOT					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
29.731111	95.151107	26			Not a Purchased Source		

(Inactive/Offline Sources)
(No inactive Sources associated with this EP/Plant)

Code Explanations
Monitoring Type Codes: (GW) GROUNDWATER, (GWP) GROUNDWATER - PURCHASED, (GUP) GROUNDWATER UNDER THE INFLUENCE - PURCHASED, (SWP) SURFACE WATER - PURCHASED, (GU) GROUNDWATER UNDER THE INFLUENCE OF SURFACE WATER, (N) NO SOURCES, (SW) SURFACE WATER
Activity Status Codes: (A) ACTIVE, (C) CCN CANCELLED, (D) DELETED/DISSOLVED, (G) SB 361, (I) INACTIVE, (M) MERGED/ANNEXED, (N) NON-PUBLIC, (P) PROPOSED, (U) UNKNOWN, (W) UTILITY WATER SYS XFER
Operational Status Codes: (C) CAPPED, (D) DEMAND, (E) EMERGENCY, (F) FORMER PWS SOURCE, (I) INACTIVE PWS SYSTEM, (N) NON-DRINKING WATER, (O) OPERATING, (P) PLUGGED, (T) TEST, (Y) PWS NOT ACTIVE AND NOT EXPECTED TO BE SO
Source Types: (G) GROUND WATER, (S) SURFACE WATER, (U) GROUND WATER UNDER THE INFLUENCE

- End of Report -

At the time of your query this data was the most current information available from our database, which is in real time. Every effort was made to retrieve it according to your query. Thank-you for using WUD.

04/04/2011
11:13:03AM**Texas Commission on Environmental Quality**
Water System Data Sheet

WSDSR

PWS ID	PWS Name	Central Registry RN
1010336	PORT OF HOUSTON BULK MATERIALS PLANT	RN102671682

Organization/Customer *	Central Registry CN
PORT OF HOUSTON AUTHORITY	CN600134324
KM SHIP CHANNEL SERVICES LLC	CN603654849

* Regulatory mail will be addressed to this organization / person

Responsible Official **		Title	
NICOLE D HAUSLER		COMPLIANCE COORDINAT	
License Type		License Number	
Mailing Address:			
Street Address		C/O or Address Line 2	
City	State	Zip	
Business Phone	Other Phone	Other Phone Type	Email

** Regulatory mail will be addressed to this person

PWS Contact - If different than above ***		Title	
AUBREY BERGUIN			
License Type		License Number	
Mailing Address for PWS Primary Contact:			
Street Address		C/O or Address Line 2	
3100 PENN CITY RD			
City	State	Zip	
HOUSTON	TX	77015 - 6599	
Business Phone	Other Phone	Other Phone Type	Email

*** Copies of most regulatory mail will be addressed to this person

No Emergency Contact assigned to this PWS

Owner Type	Owner Type Options: AFFECTED COUNTIES, COUNTY, DISTRICT/AUTHORITY,
------------	--

PRIVATE	EXEMPT, FEDERAL GOVERNMENT, INVESTOR, MUNICIPALITY, NATIVE AMERICAN, PRIVATE, SUBMETER \ ALLOCATION, STATE GOVERNMENT, NOT RETAIL PUBLIC UTILITIES, WATER SUPPLY CORPORATION, MISC/UNKNOWN
----------------	--

System Type	System Type Options: SB 361, COMMUNITY, COMMUNITY (NON-GOVERNMENT OWNED), TRANSIENT/NON-COMMUNITY, NON-PUBLIC, NON-TRANSIENT/NON-COMMUNITY
NON-TRANSIENT/NON-COMMUNITY	

Customer Class	Customer Category	Population Served	# of Connect	# of Meters	# I/C w/other PWS
NONRESIDENT	NONRESIDENTIAL	75	6	0	0

Total Product (MGD)	Average Daily Consump.	Total Storage (MG)	Elev. Storage (MG)	Booster Pump Cap. (MGD)	Aux.Prod.Cap. Max.Pur.Cap.(MGD)	Pressure Tank Cap.(MG)
0.590	0.000	0.085	0.000	1.382	0.000	0.00500

Activity Status	Deactivation Date	Reason
ACTIVE		

Operator Grade	Number
WATER GRADE B GROUND	1
WATER GRADE C GROUND	1

Last Survey Date	Surveyor	Survey Type	Code	Region	County	Def.Score
03/27/2007	MELODY KIRKSEY	SURVEY		12	HARRIS	0
09/25/2003	LAN VU	SURVEY		12	HARRIS	9
12/12/2001	CLIFFORD SHEFFIELD	SURVEY		12	HARRIS	22

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
001	0.085MG GST / GULF COAST(A)	Plant()	5546		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	423	HYPOCHLORINATION(PRE)

(Active Sources)							
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM	
G1010336A	3 - E OF FIRST RR TRACK(A)	O	G	925	410	300	
Drill Date		Well Data					
6/21/1988		EVANGELINE AQUIFER					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
29.7425	95.154724	0			Not a Purchased Source		

(Inactive/Offline Sources)			
SourceNumber	Name	Status	Depth
G1010336B	1	P	0
G1010336C	2	P	0

Code Explanations	
Monitoring Type Codes: (GW) GROUNDWATER, (GWP) GROUNDWATER - PURCHASED, (GUP) GROUNDWATER UNDER THE INFLUENCE - PURCHASED, (SWP) SURFACE WATER - PURCHASED, (GU) GROUNDWATER UNDER THE INFLUENCE OF SURFACE WATER, (N) NO SOURCES, (SW) SURFACE WATER	
Activity Status Codes: (A) ACTIVE, (C) CCN CANCELLED, (D) DELETED/DISSOLVED, (G) SB 361, (I) INACTIVE, (M) MERGED/ANNEXED, (N) NON-PUBLIC, (P) PROPOSED, (U) UNKNOWN, (W) UTILITY WATER SYS XFER	
Operational Status Codes: (C) CAPPED, (D) DEMAND, (E) EMERGENCY, (F) FORMER PWS SOURCE, (I) INACTIVE PWS SYSTEM, (N) NON-DRINKING WATER, (O) OPERATING, (P) PLUGGED, (T) TEST, (Y) PWS NOT ACTIVE AND NOT EXPECTED TO BE SO	
Source Types: (G) GROUND WATER, (S) SURFACE WATER, (U) GROUND WATER UNDER THE INFLUENCE	

- End of Report -

At the time of your query this data was the most current information available from our database, which is in real time. Every effort was made to retrieve it according to your query. Thank-you for using WUD.

04/04/2011
11:14:11AM**Texas Commission on Environmental Quality**
Water System Data Sheet

WSDSR

PWS ID	PWS Name	Central Registry RN
1011108	ARKEMA	RN101178291

Organization/Customer *	Central Registry CN
TOTAL PETROCHEMICALS USA INC	CN600582399
ARKEMA INC	CN600124044

* Regulatory mail will be addressed to this organization / person

Responsible Official **		Title	
GEORGE E CORNELIUS		PRESIDENT	
License Type	License Number		
Mailing Address:			
Street Address		C/O or Address Line 2	
City	State	Zip	
Business Phone	Other Phone	Other Phone Type	Email

** Regulatory mail will be addressed to this person

PWS Contact - If different than above ***		Title	
DERRICK STANLEY			
License Type	License Number		
Mailing Address for PWS Primary Contact:			
Street Address		C/O or Address Line 2	
PO BOX 1427			
City	State	Zip	
BEAUMONT	TX	77704 - 1427	
Business Phone	Other Phone	Other Phone Type	Email
	(713) 450-6773(409) 838-3981 Ext. 249	ALTERNAT	

*** Copies of most regulatory mail will be addressed to this person

No Emergency Contact assigned to this PWS

Owner Type	Owner Type Options: AFFECTED COUNTIES, COUNTY, DISTRICT/AUTHORITY,
------------	--

PRIVATE	EXEMPT, FEDERAL GOVERNMENT, INVESTOR, MUNICIPALITY, NATIVE AMERICAN, PRIVATE, SUBMETER \ ALLOCATION, STATE GOVERNMENT, NOT RETAIL PUBLIC UTILITIES, WATER SUPPLY CORPORATION, MISC/UNKNOWN
----------------	--

System Type	System Type Options: SB 361, COMMUNITY, COMMUNITY (NON-GOVERNMENT OWNED), TRANSIENT/NON-COMMUNITY, NON-PUBLIC, NON-TRANSIENT/NON-COMMUNITY
NON-TRANSIENT/NON-COMMUNITY	

Customer Class	Customer Category	Population Served	# of Connect	# of Meters	# I/C w/other PWS
NONRESIDENT	NONRESIDENTIAL	53	10	0	1

Total Product (MGD)	Average Daily Consump.	Total Storage (MG)	Elev. Storage (MG)	Booster Pump Cap. (MGD)	Aux.Prod.Cap. Max.Pur.Cap.(MGD)	Pressure Tank Cap.(MG)
0.144	0.040	0.008	0.000	0.864	0.000	0.00500

Activity Status	Deactivation Date	Reason
ACTIVE		

Operator Grade	Number
WATER GRADE D	1

Last Survey Date	Surveyor	Survey Type	Code	Region	County	Def.Score
03/15/2007	MAGGIE WRIGHT	SURVEY		12	HARRIS	0
10/22/2003	LAN VU	SURVEY		12	HARRIS	0
11/08/2001	MIKE DAVIS	SURVEY		12	HARRIS	9

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
001	SAMPLE TAP / GULF COAST(A)	2231 HADEN RD()	6031		No		No

Train:	(Unnamed)
--------	-----------

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	423	HYPOCHLORINATION(PRE)

(Active Sources)							
Source Number	Source Name (Activity Status)		Operational Status	Source Type	Depth	Tested GPM	Rated GPM
P1011108A	PURCHASED SW FROM NCWA(A)		O	S	0	0	0
Water Body		Segment Number			Surface Water Intake Type		
		()					
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller		
0	0	0			1013092		

(Inactive/Offline Sources)			
SourceNumber	Name	Status	Depth
G1011108A	1 - E OF BLDG	P	748
G1011108B	2 - FRONT OF ADMIN BLDG	E	1141

Code Explanations	
Monitoring Type Codes: (GW) GROUNDWATER , (GWP) GROUNDWATER - PURCHASED , (GUP) GROUNDWATER UNDER THE INFLUENCE - PURCHASED , (SWP) SURFACE WATER - PURCHASED , (GU) GROUNDWATER UNDER THE INFLUENCE OF SURFACE WATER , (N) NO SOURCES , (SW) SURFACE WATER	
Activity Status Codes: (A) ACTIVE , (C) CCN CANCELLED , (D) DELETED/DISSOLVED , (G) SB 361 , (I) INACTIVE , (M) MERGED/ANNEXED , (N) NON-PUBLIC , (P) PROPOSED , (U) UNKNOWN , (W) UTILITY WATER SYS XFER	
Operational Status Codes: (C) CAPPED , (D) DEMAND , (E) EMERGENCY , (F) FORMER PWS SOURCE , (I) INACTIVE PWS SYSTEM , (N) NON-DRINKING WATER , (O) OPERATING , (P) PLUGGED , (T) TEST , (Y) PWS NOT ACTIVE AND NOT EXPECTED TO BE SO	
Source Types: (G) GROUND WATER , (S) SURFACE WATER , (U) GROUND WATER UNDER THE INFLUENCE	

- End of Report -

At the time of your query this data was the most current information available from our database, which is in real time. Every effort was made to retrieve it according to your query. Thank-you for using WUD.

04/04/2011
11:15:24AM**Texas Commission on Environmental Quality**
Water System Data Sheet

WSDSR

PWS ID	PWS Name	Central Registry RN
1010074	GB BIOSCIENCES CORPORATION	RN103392650

Organization/Customer *	Central Registry CN
GB BIOSCIENCES CORPORATION	CN600132831

* Regulatory mail will be addressed to this organization / person

Responsible Official **		Title	
JOHN RILEY		PRESIDENT	
License Type		License Number	
Mailing Address:			
Street Address		C/O or Address Line 2	
2239 HADEN RD		C/O KATHY CAMERON ENVIRONMENTAL MANAGER	
City	State	Zip	
HOUSTON	TX	77015 - 6493	
Business Phone	Other Phone	Other Phone Type	Email
(713) 450-6518			

** Regulatory mail will be addressed to this person

PWS Contact - If different than above ***		Title	
MARIAN PARKS			
License Type		License Number	
Mailing Address for PWS Primary Contact:			
Street Address		C/O or Address Line 2	
2239 HADEN RD			
City	State	Zip	
HOUSTON	TX	77015 - 6449	
Business Phone	Other Phone	Other Phone Type	Email
			marian.parks@syngenta.com

*** Copies of most regulatory mail will be addressed to this person

No Emergency Contact assigned to this PWS

Owner Type	Owner Type Options: AFFECTED COUNTIES, COUNTY, DISTRICT/AUTHORITY, EXEMPT, FEDERAL GOVERNMENT, INVESTOR, MUNICIPALITY, NATIVE AMERICAN, PRIVATE, SUBMETER \ ALLOCATION, STATE GOVERNMENT, NOT RETAIL PUBLIC

PRIVATE	UTILITIES, WATER SUPPLY CORPORATION, MISC/UNKNOWN
----------------	---

System Type	System Type Options: SB 361, COMMUNITY, COMMUNITY (NON-GOVERNMENT OWNED), TRANSIENT/NON-COMMUNITY, NON-PUBLIC, NON-TRANSIENT/NON-COMMUNITY
NON-TRANSIENT/NON-COMMUNITY	

Customer Class	Customer Category	Population Served	# of Connect	# of Meters	# I/C w/other PWS
NONRESIDENT	NONRESIDENTIAL	300	26	0	1

Total Product (MGD)	Average Daily Consump.	Total Storage (MG)	Elev. Storage (MG)	Booster Pump Cap. (MGD)	Aux.Prod.Cap. Max.Pur.Cap.(MGD)	Pressure Tank Cap.(MG)
0.000	0.000	0.036	0.000	1.728	0.000	0.00250

Activity Status	Deactivation Date	Reason
ACTIVE		

Operator Grade	Number
WATER GRADE D	2

Last Survey Date	Surveyor	Survey Type	Code	Region	County	Def.Score
03/15/2007	MAGGIE WRIGHT	SURVEY		12	HARRIS	0
07/31/2006	THERESA CISNEROS	EVAL-RPADD		12	HARRIS	0
10/22/2003	LAN VU	SURVEY		12	HARRIS	0

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
001	PT / GULF COAST(A)	2239 HADEN ROAD()	5319		No		No

Train: (Unnamed)

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	423	HYPOCHLORINATION(PRE)

(Active Sources)						
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
P1010074A	NORTH CHANNEL WATER AUTHORITY(A)	O	G	0	0	0
Drill Date		Well Data				
0/0/2001						
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller	
0	0	0			1013092	

(Inactive/Offline Sources)			
SourceNumber	Name	Status	Depth
G1010074A	1 - NEAR RAILROAD	P	1175
G1010074B	2 - FRONT OF PLANT	P	1224
G1010074C	3 - FRONT OF PLANT	E	1290

Code Explanations	
Monitoring Type Codes: (GW) GROUNDWATER , (GWP) GROUNDWATER - PURCHASED , (GUP) GROUNDWATER UNDER THE INFLUENCE - PURCHASED , (SWP) SURFACE WATER - PURCHASED , (GU) GROUNDWATER UNDER THE INFLUENCE OF SURFACE WATER , (N) NO SOURCES , (SW) SURFACE WATER	
Activity Status Codes: (A) ACTIVE , (C) CCN CANCELLED , (D) DELETED/DISSOLVED , (G) SB 361 , (I) INACTIVE , (M) MERGED/ANNEXED , (N) NON-PUBLIC , (P) PROPOSED , (U) UNKNOWN , (W) UTILITY WATER SYS XFER	
Operational Status Codes: (C) CAPPED , (D) DEMAND , (E) EMERGENCY , (F) FORMER PWS SOURCE , (I) INACTIVE PWS SYSTEM , (N) NON-DRINKING WATER , (O) OPERATING , (P) PLUGGED , (T) TEST , (Y) PWS NOT ACTIVE AND NOT EXPECTED TO BE SO	
Source Types: (G) GROUND WATER , (S) SURFACE WATER , (U) GROUND WATER UNDER THE INFLUENCE	

- End of Report -

At the time of your query this data was the most current information available from our database, which is in real time. Every effort was made to retrieve it according to your query. Thank-you for using WUD.

4/7/2011

04/07/2011

11:28:06AM

Water System Data Sheet Report

Texas Commission on Environmental Quality

WSDSR

Water System Data Sheet

PWS ID	PWS Name	Central Registry RN
1011573	GEORGIA GULF CHEMICALS & VINYL PASADENA PLANT	RN101230753

Organization/Customer *	Central Registry CN
GEORGIA GULF CHEMICALS & VINYL LLC	CN600753966

* Regulatory mail will be addressed to this organization / person

Responsible Official **		Title	
EDWARD SCHMITT		PRESIDENT	
License Type		License Number	
Mailing Address:			
Street Address		C/O or Address Line 2	
PO BOX 1959		C/O STEVE CHRISTIANSEN PLANT MANAGER	
City	State	Zip	
PASADENA	TX	77501 - 1959	
Business Phone	Other Phone	Other Phone Type	Email
(713) 920-4330			

** Regulatory mail will be addressed to this person

PWS Contact - If different than above ***		Title	
SHAWN LYLES		OPERATOR	
License Type		License Number	
Mailing Address for PWS Primary Contact:			
Street Address		C/O or Address Line 2	
City	State	Zip	
Business Phone	Other Phone	Other Phone Type	Email
(713) 920-4330			

*** Copies of most regulatory mail will be addressed to this person

No Emergency Contact assigned to this PWS

Owner Type	Owner Type Options: AFFECTED COUNTIES, COUNTY, DISTRICT/AUTHORITY, EXEMPT, FEDERAL GOVERNMENT, INVESTOR, MUNICIPALITY, NATIVE AMERICAN, PRIVATE, SUBMETER \ ALLOCATION, STATE GOVERNMENT, NOT RETAIL PUBLIC UTILITIES, WATER SUPPLY CORPORATION, MISC/UNKNOWN
PRIVATE	

System Type	System Type Options: SB 361, COMMUNITY, COMMUNITY (NON-GOVERNMENT OWNED), TRANSIENT/NON-COMMUNITY, NON-PUBLIC, NON-TRANSIENT/NON-COMMUNITY
NON-TRANSIENT/NON-COMMUNITY	

Customer Class	Customer Category	Population Served	# of Connect	# of Meters	# I/C w/other PWS
NONRESIDENT	NONRESIDENTIAL	65	5	0	0

Total Product (MGD)	Average Daily Consump.	Total Storage (MG)	Elev. Storage (MG)	Booster Pump Cap. (MGD)	Aux.Prod.Cap. Max.Pur.Cap.(MGD)	Pressure Tank Cap.(MG)
0.071	0.000	0.002	0.000	0.202	0.000	0.00080

Activity Status	Deactivation Date	Reason
ACTIVE		

Operator Grade	Number
WATER GRADE D	6

Last Survey Date	Surveyor	Survey Type	Code	Region	County	Def.Score
01/15/2008	BARRY PRICE	SURVEY		12	HARRIS	0
08/25/2004	LAN VU	SURVEY		12	HARRIS	2
04/15/2002	LAN VU	SURVEY		12	HARRIS	0

(Entry Point)							
Entry Point	EP Name/Source Summation (Activity Status)	Plant Name (Activity Status)	WUD Plant Num	Chemical Mon Type	Chem Sample Point	Distribution Mon Type	Dist Sample Point
001	0.0008 MG PT / CHICOT(A)	3503 HWY 225()	6239		No		No

Train: (Unnamed)

(Treatments)				
Disinfection Zone	Treatment Sequence	Objective	Process	Treatment
	1	D	423	HYPOCHLORINATION(PRE)

(Active Sources)						
Source Number	Source Name (Activity Status)	Operational Status	Source Type	Depth	Tested GPM	Rated GPM
G1011573B	2 - 3503 HWY 225(A)	O	G	490	49	57
Drill Date		Well Data				
7/27/1996		CHICOT AQUIFER, LOWER				
GPS Latitude (decimal)	GPS Longitude (decimal)	GPS Elevation	GPS Date	GPS Cert. No.	Seller	
29.72611	95.15583	0			Not a Purchased Source	

(Inactive/Offline Sources)			
SourceNumber	Name	Status	Depth
G1011573A	1 - CENTER OF PLANT	P	500

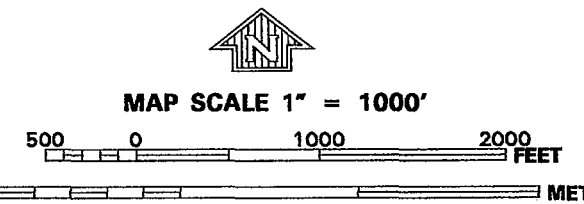
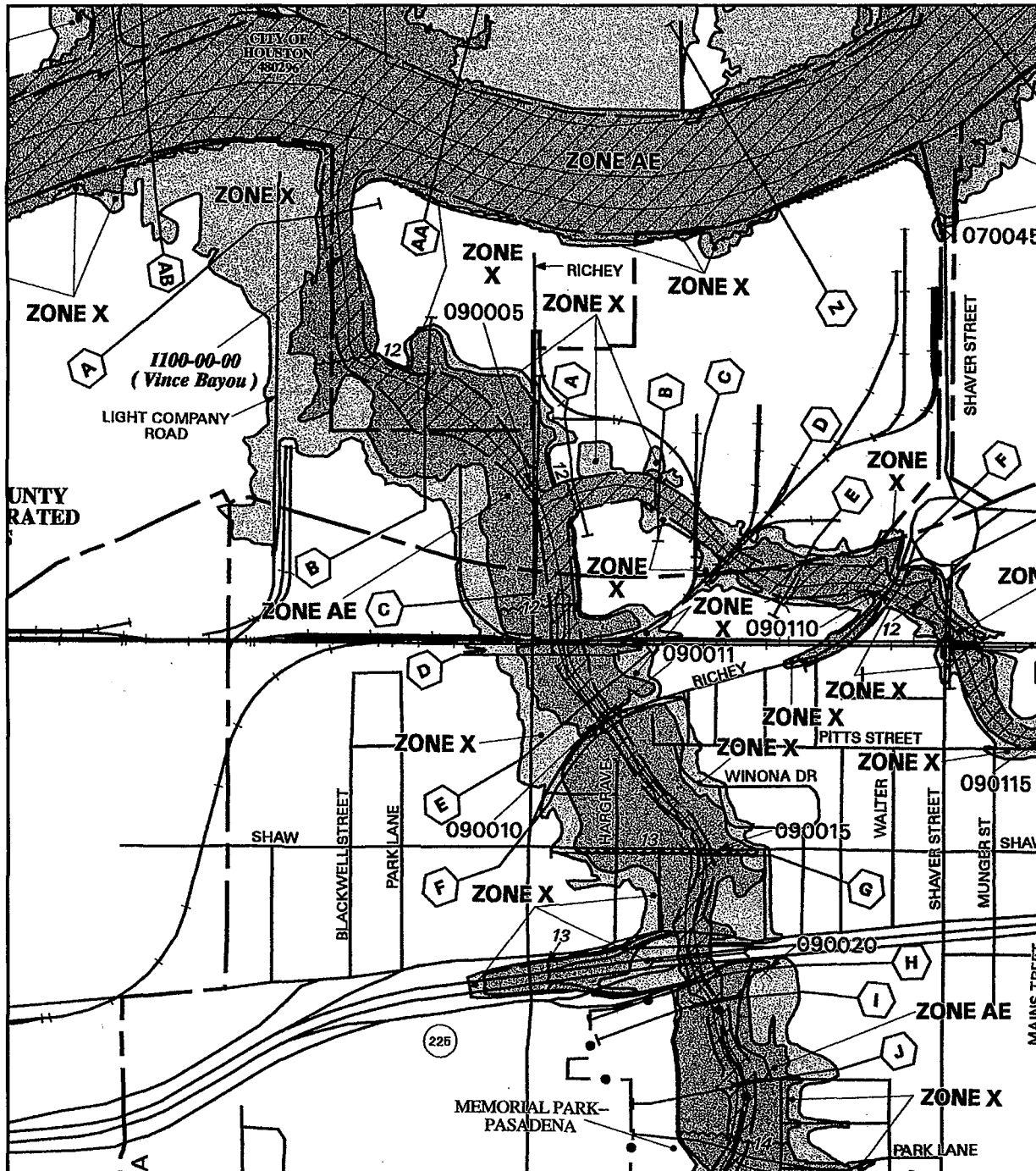
Code Explanations	
Monitoring Type Codes: (GW) GROUNDWATER , (GWP) GROUNDWATER - PURCHASED , (GUP) GROUNDWATER UNDER THE INFLUENCE - PURCHASED , (SWP) SURFACE WATER - PURCHASED , (GU) GROUNDWATER UNDER THE INFLUENCE OF SURFACE WATER , (N) NO SOURCES , (SW) SURFACE WATER	
Activity Status Codes: (A) ACTIVE , (C) CCN CANCELLED , (D) DELETED/DISSOLVED , (G) SB 361 , (I) INACTIVE , (M) MERGED/ANNEXED , (N) NON-PUBLIC , (P) PROPOSED , (U) UNKNOWN , (W) UTILITY WATER SYS XFER	
Operational Status Codes: (C) CAPPED , (D) DEMAND , (E) EMERGENCY , (F) FORMER PWS SOURCE , (I) INACTIVE PWS SYSTEM , (N) NON-DRINKING WATER , (O) OPERATING , (P) PLUGGED , (T) TEST , (Y) PWS NOT ACTIVE AND NOT EXPECTED TO BE SO	
Source Types: (G) GROUND WATER , (S) SURFACE WATER , (U) GROUND WATER UNDER THE INFLUENCE	

- End of Report -

At the time of your query this data was the most current information available from our database, which is in real time. Every effort was made to retrieve it according to your query. Thank-you for using WUD.

Reference 40:

Federal Emergency Management Agency. Flood Insurance Rate Map: Harris County, Texas. Panel 905 of 1150. Community-Panel Number 480307 – 0905 L. Accessed August 31, 2009. 1 page.



NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0905L

FIRM
FLOOD INSURANCE RATE MAP
HARRIS COUNTY,
TEXAS
AND INCORPORATED AREAS

PANEL 905 OF 1150
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
HOUSTON, CITY OF	480296	0905	L
GALVESTON, CITY OF	480293	0905	L
HARRIS COUNTY, UNINCORPORATED AREAS	480287	0905	L
PASADENA, CITY OF	480307	0905	L

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
48201C0905L

MAP REVISED:
JUNE 18, 2007

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Reference 41:
FEMA Flood Zone Destinations. Accessed on September 10, 2010. 1 page.

[Product Catalog](#) | [Map Search](#) | [Quick Order](#) | [Digital Post Office](#) | [Help](#)[Log on](#)[Home](#) > FEMA Flood Zone Designations

Definitions of FEMA Flood Zone Designations

Flood zones are geographic areas that the FEMA has defined according to varying levels of flood risk. These zones are depicted on a community's Flood Insurance Rate Map (FIRM) or Flood Hazard Boundary Map. Each zone reflects the severity or type of flooding in the area.

Moderate to Low Risk Areas

In communities that participate in the NFIP, flood insurance is available to all property owners and renters in these zones:

ZONE	DESCRIPTION
B and X (shaded)	Area of moderate flood hazard, usually the area between the limits of the 100-year and 500-year floods. B Zones are also used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood, or shallow flooding areas with average depths of less than one foot or drainage areas less than 1 square mile.
C and X (unshaded)	Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. Zone C may have ponding and local drainage problems that don't warrant a detailed study or designation as base floodplain. Zone X is the area determined to be outside the 500-year flood and protected by levee from 100-year flood.

High Risk Areas

In communities that participate in the NFIP, mandatory flood insurance purchase requirements apply to all of these zones:

ZONE	DESCRIPTION
A	Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas; no depths or base flood elevations are shown within these zones.
AE	The base floodplain where base flood elevations are provided. AE Zones are now used on new format FIRMs instead of A1-A30 Zones.
A1-30	These are known as numbered A Zones (e.g., A7 or A14). This is the base floodplain where the FIRM shows a BFE (old format).
AH	Areas with a 1% annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
AO	River or stream flood hazard areas, and areas with a 1% or greater chance of shallow flooding each year, usually in the form of sheet flow, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Average flood depths derived from detailed analyses are shown within these zones.
AR	Areas with a temporarily increased flood risk due to the building or restoration of a flood control system (such as a levee or a dam). Mandatory flood insurance purchase requirements will apply, but rates will not exceed the rates for unnumbered A zones if the structure is built or restored in compliance with Zone AR floodplain management regulations.
A99	Areas with a 1% annual chance of flooding that will be protected by a Federal flood control system where construction has reached specified legal requirements. No depths or base flood elevations are shown within these zones.

High Risk - Coastal Areas

In communities that participate in the NFIP, mandatory flood insurance purchase requirements apply to all of these zones:

ZONE	DESCRIPTION
V	Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26% chance of flooding over the life of a 30-year mortgage. No base flood elevations are shown within these zones.
VE, V1 - 30	Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.

Undetermined Risk Areas

ZONE	DESCRIPTION
D	Areas with possible but undetermined flood hazards. No flood hazard analysis has been conducted. Flood insurance rates are commensurate with the uncertainty of the flood risk.

Reference 42:

**Texas Natural Resource Conservation Commission. Chapter 307- Texas Surface
Water Quality Standards. 144 pages. 1 excerpted page.**

SAN JACINTO RIVER BASIN		USES				CRITERIA						
		Recreation	Aquatic Life	Domestic Water Supply	Other	Cl ⁻¹ (mg/L)	SO ₄ ⁻² (mg/L)	TDS (mg/L)	Dissolved Oxygen (mg/L)	pH Range (SU)	Indicator Bacteria ¹ #/100ml	Temperature (°F)
Segment No.	SEGMENT NAME											
1001	San Jacinto River Tidal	CR	H						4.0	6.5-9.0	35/200	95
1002	Lake Houston	CR	H	PS		100	50	400	5.0	6.5-9.0	126/200	90
1003	East Fork San Jacinto River	CR	H	PS		80	50	400	5.0	6.0-8.5	126/200	91
1004	West Fork San Jacinto River	CR	H	PS		100	50	400	5.0	6.5-9.0	126/200	95
1005	Houston Ship Channel/San Jacinto River Tidal	NCR	H						4.0	6.5-9.0	35/200	95
1006 ²	Houston Ship Channel Tidal				N/IS				2.0	6.5-9.0	168 ³	95
1007 ²	Houston Ship Channel/Buffalo Bayou Tidal				N/IS				1.0	6.5-9.0	168 ³	95
1008	Spring Creek	CR	H	PS		100	50	450	5.0	6.5-9.0	126/200	90
1009	Cypress Creek	CR	H	PS		100	50	600	5.0	6.5-9.0	126/200	90
1010	Caney Creek	CR	H	PS		50	50	300	5.0	6.0-8.5	126/200	90
1011	Peach Creek	CR	H	PS		50	50	300	5.0	6.0-8.5	126/200	90
1012	Lake Conroe	CR	H	PS		50	50	300	5.0	6.5-9.0	126/200	90
1013	Buffalo Bayou Tidal	CR	I						3.0	6.5-9.0	35/200	92
1014	Buffalo Bayou Above Tidal	CR	L			110	65	600	3.0	6.5-9.0	126/200	92
1015	Lake Creek	CR	H	PS		80	50	300	5.0	6.0-8.5	126/200	90
1016	Greens Bayou Above Tidal	CR	L			150	150	1,000	3.0	6.5-9.0	126/200	92
1017	Whiteoak Bayou Above Tidal	CR	L			110	65	600	3.0	6.5-9.0	126/200	92

¹ The indicator bacteria for freshwater is *E. coli* and Enterococci for saltwater. Fecal coliform is an alternative indicator.

² Chronic numerical toxic criteria and chronic total toxicity requirements apply to Segments 1006 and 1007.

³ 30-day geometric mean enterococci density (colonies/100ml); the maximum enterococci density in 10% of samples in a 30-day period if greater than 10 samples or in a single sample if fewer than 10 samples are collected is 500 colonies/100ml.

Reference 43:

**Texas Department of Health: Fish and Shellfish Consumption Advisory-
ADV 20: Issued on October 9, 2001. 1 page.**

TEXAS DEPARTMENT OF HEALTH
FISH AND SHELLFISH CONSUMPTION ADVISORY

ADV-20

This advisory is issued as a result of sampling of the Houston Ship Channel and the San Jacinto River in Harris County. Samples of fish taken from the Houston Ship Channel upstream of the Lynchburg Ferry crossing and from the San Jacinto River downstream of the U.S. Highway 90 bridge indicate the presence of organochlorine pesticides and PCBs at concentrations that may pose a threat to human health if consumed. These waters are covered concurrently by ADV-3, issued in 1990 due to the presence of dioxins in catfish and blue crabs.

COUNTY:	Harris
AREA:	The Houston Ship Channel upstream of the Lynchburg Ferry crossing and all contiguous waters, including the San Jacinto River below the U.S. Highway 90 bridge.
SPECIES AFFECTED:	All species of fish.
CONSUMPTION ADVISORY:	Persons should limit consumption of all fish species from this area to no more than one eight-ounce meal per month. Women who are nursing, pregnant, or who may become pregnant and children should not consume any species of fish from these waters.

This advisory shall remain in effect until rescinded or modified in writing.

Issued this 9th day of October, 2001

C E Bell MD
Charles E. Bell, M.D.
Executive Deputy Commissioner

Reference 44:

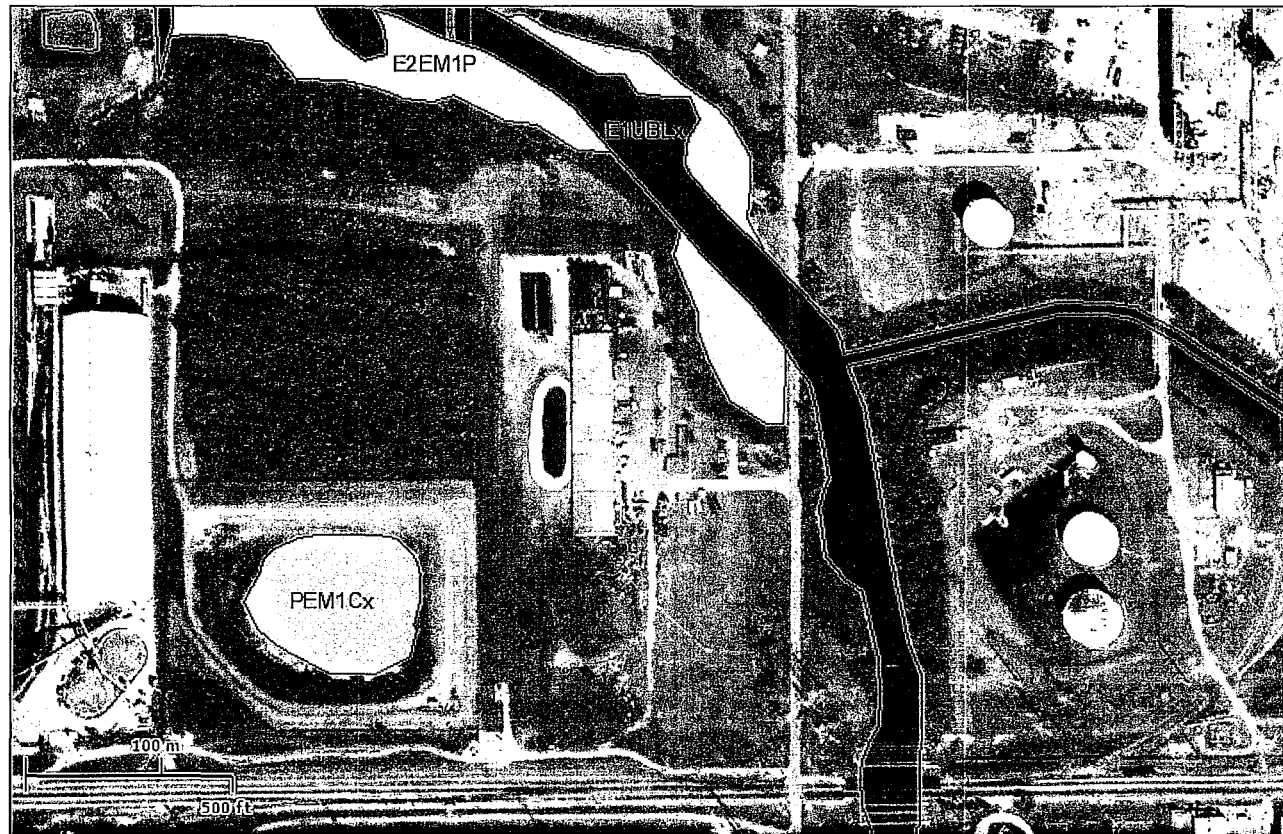
**US Fish and Wildlife Service-Natural Wetlands Inventory. USOR Wetlands.
Available at <http://www.fws.gov/wetlands/Data/Mapper.html>. Accessed on
September 7, 2010. 3 pages.**



U.S. Fish and Wildlife Service National Wetlands Inventory

USOR Wetlands Map

Sep 8, 2010



Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deetwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

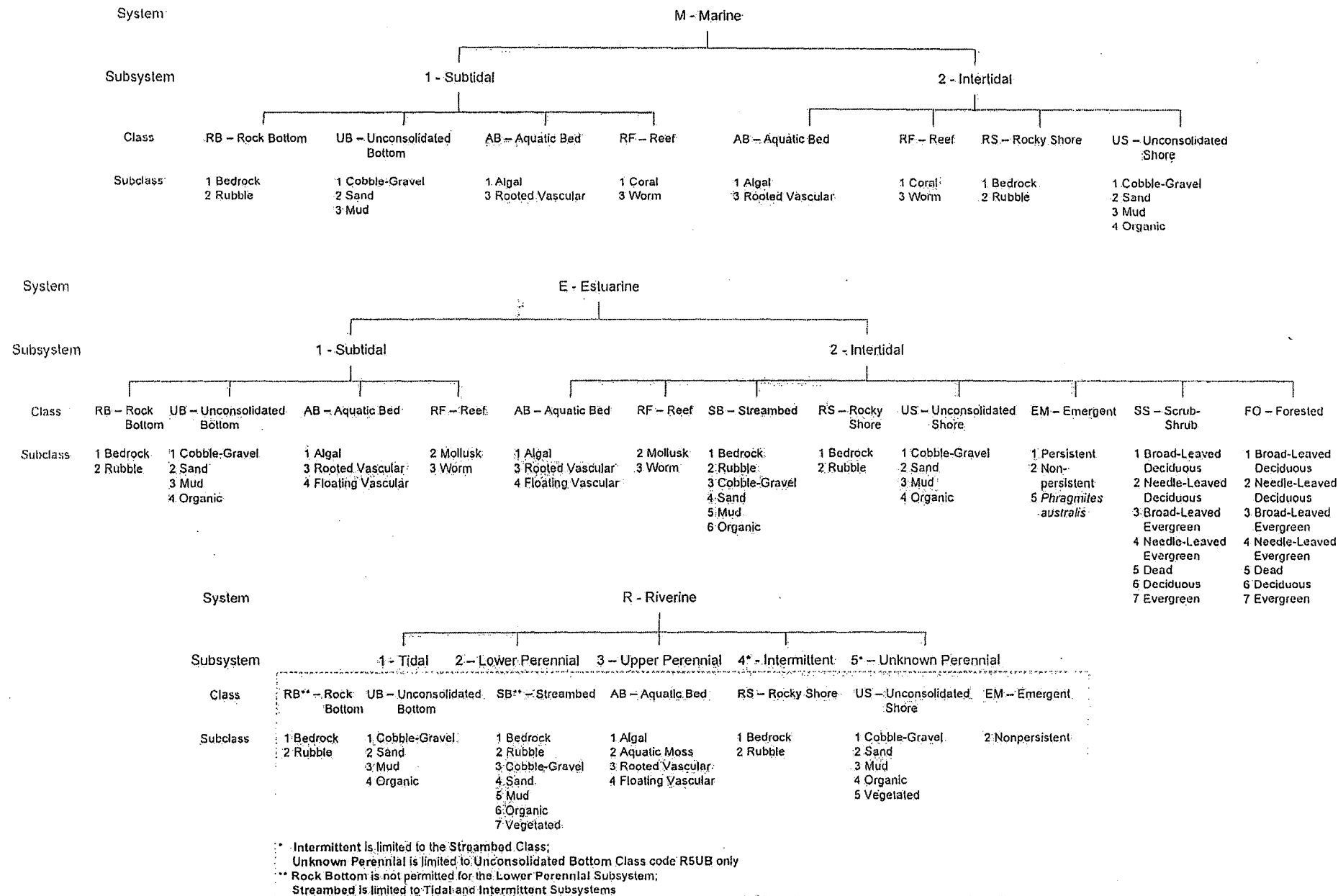
Status

- Digital
- Scan
- Non-Digital
- No Data

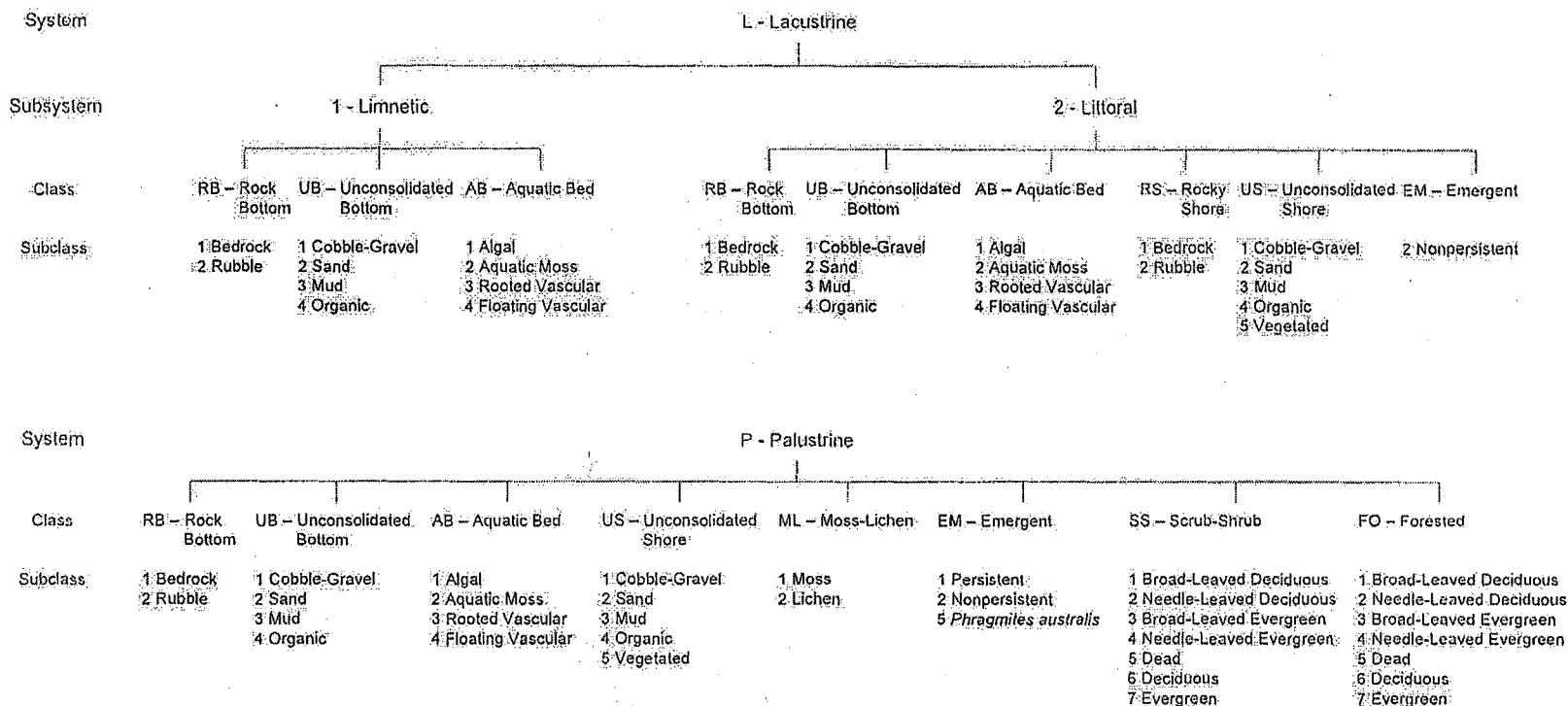
User Remarks:

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

WETLANDS AND DEEPWATER HABITATS CLASSIFICATION



WETLANDS AND DEEPWATER HABITATS CLASSIFICATION



MODIFIERS						
In order to more adequately describe the wetland and deepwater habitats, one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.						
Water Regime			Special Modifiers	Water Chemistry		Soil
Nontidal	Saltwater Tidal	Freshwater Tidal		Coastal Salinity	Inland Salinity pH Modifiers for all Fresh Water	
A Temporarily Flooded	L Subtidal	S Temporarily Flooded-Tidal	b Beaver	1 Hyperhaline	7 Hypersaline	a Acid
B Saturated	M Irregularly Exposed	R Seasonally Flooded-Tidal	d Partly Drained/Ditched	2 Euhaline	8 Euhaline	i Circumneutral
C Seasonally Flooded	N Regularly Flooded	T Semipermanently Flooded-Tidal	f Farmed	3 Mixohaline (Brackish)	9 Mixohaline	l Alkaline
E Seasonally Flooded/ Saturated	P Irregularly Flooded	V Permanently Flooded-Tidal	h Diked/Impounded	4 Polyhaline	0 Fresh	
F Semipermanently Flooded			r Artificial	5 Mesohaline		
G Intermittently Exposed			s Spoil	6 Oligohaline		
H Permanently Flooded			x Excavated	0 Fresh		
J Intermittently Flooded						
K Artificially Flooded						

Reference 45:

**Texas Parks and Wildlife Department: Annotated County List of Rare Species
for Harris County. Available at <http://www.tpwd.state.tx.us>. 6 pages.**

Last Revision: 7/19/2010 8:54:00 AM

HARRIS COUNTY

AMPHIBIANS

Federal Status State Status

Houston toad *Anaxyrus houstonensis* LE E
endemic; sandy substrate, water in pools, ephemeral pools, stock tanks; breeds in spring especially after rains; burrows in soil of adjacent uplands when inactive; breeds February-June; associated with soils of the Sparta, Carrizo, Goliad, Queen City, Recklaw, Weches, and Willis geologic formations

BIRDS

Federal Status State Status

American Peregrine Falcon *Falco peregrinus anatum* DL T
year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Arctic Peregrine Falcon *Falco peregrinus tundrius* DL
migrant throughout state from subspecies' far northern breeding range; winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Bald Eagle *Haliaeetus leucocephalus* DL T
found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds

Black Rail *Laterallus jamaicensis*
salt, brackish, and freshwater marshes, pond borders, wet meadows, and grassy swamps; nests in or along edge of marsh, sometimes on damp ground, but usually on mat of previous year's dead grasses; nest usually hidden in marsh grass or at base of Salicornia

Brown Pelican *Pelecanus occidentalis* DL E
largely coastal and near shore areas, where it roosts and nests on islands and spoil banks

Henslow's Sparrow *Ammodramus henslowii*
wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking.

Mountain Plover *Charadrius montanus* PT
breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous

Peregrine Falcon *Falco peregrinus* DL T

HARRIS COUNTY

BIRDS

Federal Status State Status

both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.

Red-cockaded Woodpecker *Picoides borealis* LE E

cavity nests in older pine (60+ years); forages in younger pine (30+ years); prefers longleaf, shortleaf, and loblolly

Snowy Plover *Charadrius alexandrinus*

formerly an uncommon breeder in the Panhandle; potential migrant; winter along coast

Southeastern Snowy Plover *Charadrius alexandrinus tenuirostris*

wintering migrant along the Texas Gulf Coast beaches and bayside mud or salt flats

White-faced Ibis *Plegadis chihi* T

prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats

White-tailed Hawk *Buteo albicaudatus* T

near coast on prairies, cordgrass flats, and scrub-live oak; further inland on prairies, mesquite and oak savannas, and mixed savanna-chaparral; breeding March-May

Whooping Crane *Grus americana* LE E

potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties

Wood Stork *Mycteria americana* T

forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960

FISHES

Federal Status State Status

American eel *Anguilla rostrata*

coastal waterways below reservoirs to gulf; spawns January to February in ocean, larva move to coastal waters, metamorphose, then females move into freshwater; most aquatic habitats with access to ocean, muddy bottoms, still waters, large streams, lakes; can travel overland in wet areas; males in brackish estuaries; diet varies widely, geographically, and seasonally

Creek chubsucker *Erimyzon oblongus* T

tributaries of the Red, Sabine, Neches, Trinity, and San Jacinto rivers; small rivers and creeks of various types; seldom in impoundments; prefers headwaters, but seldom occurs in springs; young typically in headwater rivulets or marshes; spawns in river mouths or pools, riffles, lake outlets, upstream creeks

HARRIS COUNTY

FISHES

		Federal Status	State Status
Smalltooth sawfish	<i>Pristis pectinata</i>	LE	E
different life history stages have different patterns of habitat use; young found very close to shore in muddy and sandy bottoms, seldom descending to depths greater than 32 ft (10 m); in sheltered bays, on shallow banks, and in estuaries or river mouths; adult sawfish are encountered in various habitat types (mangrove, reef, seagrass, and coral), in varying salinity regimes and temperatures, and at various water depths, feed on a variety of fish species and crustaceans			

MAMMALS

		Federal Status	State Status
Louisiana black bear	<i>Ursus americanus luteolus</i>	LT	T
possible as transient; bottomland hardwoods and large tracts of inaccessible forested areas			
Plains spotted skunk	<i>Spilogale putorius interrupta</i>		
catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie			
Rafinesque's big-eared bat	<i>Corynorhinus rafinesquii</i>		T
roosts in cavity trees of bottomland hardwoods, concrete culverts, and abandoned man-made structures			
Red wolf	<i>Canis rufus</i>	LE	E
extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies			
Southeastern myotis bat	<i>Myotis austroriparius</i>		
roosts in cavity trees of bottomland hardwoods, concrete culverts, and abandoned man-made structures			

MOLLUSKS

		Federal Status	State Status
Little spectaclecase	<i>Villosa lienosa</i>		
creeks, rivers, and reservoirs, sandy substrates in slight to moderate current, usually along the banks in slower currents; east Texas, Cypress through San Jacinto River basins			
Louisiana pigtoe	<i>Pleurobema riddellii</i>		T
streams and moderate-size rivers, usually flowing water on substrates of mud, sand, and gravel; not generally known from impoundments; Sabine, Neches, and Trinity (historic) River basins			
Pistolgrip	<i>Tritogonia verrucosa</i>		
stable substrate, rock, hard mud, silt, and soft bottoms, often buried deeply; east and central Texas, Red through San Antonio River basins			
Rock pocketbook	<i>Arcidens confragosus</i>		
mud, sand, and gravel substrates of medium to large rivers in standing or slow flowing water, may tolerate moderate currents and some reservoirs, east Texas, Red through Guadalupe River basins			
Sandbank pocketbook	<i>Lampsilis satura</i>		T

HARRIS COUNTY

MOLLUSKS

Federal Status State Status

small to large rivers with moderate flows and swift current on gravel, gravel-sand, and sand bottoms; east Texas, Sulfur south through San Jacinto River basins; Neches River

Texas pigtoe *Fusconaia askewi* T

rivers with mixed mud, sand, and fine gravel in protected areas associated with fallen trees or other structures; east Texas River basins, Sabine through Trinity rivers as well as San Jacinto River

Wabash pigtoe *Fusconaia flava*

creeks to large rivers on mud, sand, and gravel from all habitats except deep shifting sands; found in moderate to swift current velocities; east Texas River basins, Red through San Jacinto River basins; elsewhere occurs in reservoirs and lakes with no flow

REPTILES

Federal Status State Status

Alligator snapping turtle *Macrochelys temminckii* T

perennial water bodies; deep water of rivers, canals, lakes, and oxbows; also swamps, bayous, and ponds near deep running water; sometimes enters brackish coastal waters; usually in water with mud bottom and abundant aquatic vegetation; may migrate several miles along rivers; active March-October; breeds April-October

Green sea turtle *Chelonia mydas* LT T

Gulf and bay system; shallow water seagrass beds, open water between feeding and nesting areas, barrier island beaches; adults are herbivorous feeding on sea grass and seaweed; juveniles are omnivorous feeding initially on marine invertebrates, then increasingly on sea grasses and seaweeds; nesting behavior extends from March to October, with peak activity in May and June

Gulf Saltmarsh snake *Nerodia clarkii*

saline flats, coastal bays, and brackish river mouthss

Kemp's Ridley sea turtle *Lepidochelys kempii* LE E

Gulf and bay system, adults stay within the shallow waters of the Gulf of Mexico; feed primarily on crabs, but also snails, clams, other crustaceans and plants, juveniles feed on sargassum and its associated fauna; nests April through August

Leatherback sea turtle *Dermochelys coriacea* LE E

Gulf and bay systems, and widest ranging open water reptile; omnivorous, shows a preference for jellyfish; in the US portion of their western Atlantic nesting territories, nesting season ranges from March to August

Loggerhead sea turtle *Caretta caretta* LT T

Gulf and bay system primarily for juveniles, adults are most pelagic of the sea turtles; omnivorous, shows a preference for mollusks, crustaceans, and coral; nests from April through November

Smooth green snake *Liophorophis vernalis* T

Gulf Coastal Plain; mesic coastal shortgrass prairie vegetation; prefers dense vegetation

Texas horned lizard *Phrynosoma cornutum* T

HARRIS COUNTY

REPTILES

Federal Status State Status

open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September

**Timber/Canebrake
rattlesnake** *Crotalus horridus*

T

swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto

PLANTS

Federal Status State Status

Coastal gay-feather *Liatris bracteata*

Texas endemic; coastal prairie grasslands of various types, from salty prairie on low-lying somewhat saline clay loams to upland prairie on nonsaline clayey to sandy loams; flowering in fall

**Giant sharpstem umbrella-
sedge** *Cyperus cephalanthus*

in Texas on saturated, fine sandy loam soils, along nearly level fringes of deep prairie depressions; also in depressional area within coastal prairie remnant on heavy black clay; in Louisiana, most sites are coastal prairie on poorly drained sites, some on slightly elevated areas surrounded by standing shallow water, and on moderately drained sites; soils include very strongly acid to moderately alkaline silt loams and silty clay loams; flowering/fruiting May-June, August-September, and possibly other times in response to rainfall

Houston daisy *Rayjacksonia aurea*

Texas endemic; on and around naturally barren or sparsely vegetated saline slick spots or pimple mounds on coastal prairies, usually on sandy to sandy loam soils, occasionally in pastures and on roadsides in similar soil types where mowing may mimic natural prairie disturbance regimes; flowering late September-November (-December)

Texas meadow-rue *Thalictrum texanum*

Texas endemic; mostly found in woodlands and woodland margins on soils with a surface layer of sandy loam, but it also occurs on prairie pimple mounds; both on uplands and creek terraces, but perhaps most common on claypan savannas; soils are very moist during its active growing season; flowering/fruiting (January-)February-May, withering by midsummer, foliage reappears in late fall(November) and may persist through the winter

Texas prairie dawn *Hymenoxys texana*

LE

E

Texas endemic; in poorly drained, sparsely vegetated areas (slick spots) at the base of mima mounds in open grassland or almost barren areas on slightly saline soils that are sticky when wet and powdery when dry; flowering late February-early April

Texas windmill-grass *Chloris texensis*

Texas endemic; sandy to sandy loam soils in relatively bare areas in coastal prairie grassland remnants, often on roadsides where regular mowing may mimic natural prairie fire regimes; flowering in fall

Threeflower broomweed *Thurovia triflora*

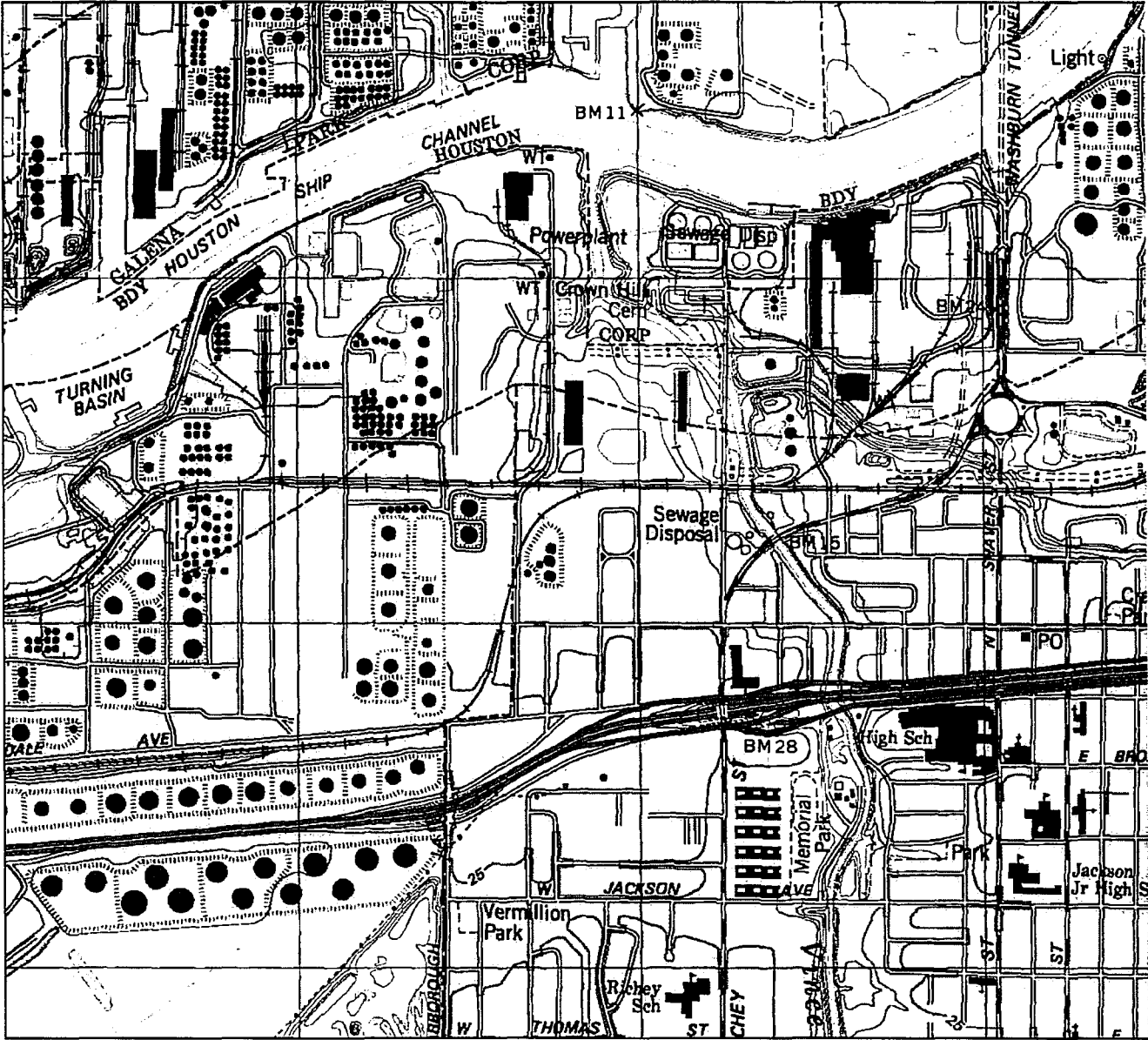
HARRIS COUNTY

PLANTS

Federal Status State Status

Texas endemic; near coast in sparse, low vegetation on a veneer of light colored silt or fine sand over saline clay along drier upper margins of ecotone between between salty prairies and tidal flats; further inland associated with vegetated slick spots on prairie mima mounds; flowering September-November

Reference 46:
United States Geological Survey, Topographical Map for Pasadena, Texas, 1995,
1 page.



0 0.5 Mi
0 2000 Ft

Map provided by MyTopo.com

Reference 47:

Google Maps. Schools near 400 North Richey Street, Pasadena, Texas. Available at www.maps.google.com. Accessed on September 7, 2010. 2 pages.

Google maps schools near 400 N Richey St, Pasadena, TX 77506

To see all the details that are visible on the screen, use the "Print" link next to the map.

[Get Directions](#) [My Maps](#)

[Print](#) [Send](#) [Link](#)



Colorado Tech University - CTUDenver.CTUDegreeNow.com - Flexible Program at Denver Campus, Bay Night of Weel

A. Pasadena High **School**: High Schools
206 Shaver St, Pasadena, TX - (713) 740-0310
- 0.7 mi SE
9 reviews

B. Kruse Elementary **School**
400 Main Street, Pasadena, TX -
(713) 920-8200 - 0.9 mi SE
2 reviews

C. Jackson Intermediate **School**
1020 Thomas Avenue, Pasadena, TX -

D. McJrotc Unit Paseda High Schoo
206 Shaver St, Pasadena, TX - (713) 473-8080

(713) 740-0440 - 1.0 mi SE

- 0.9 mi SE

Report a

problem

Hide

☒ schools loc: 400 N Richey St, Pasadena, TX 77506

☒ 400 North Richey Street, Pasadena, TX

02

Reference 48:

**Google Maps. Daycare facilities located near 400 North Richey Street, Pasadena, Texas. Available at www.maps.google.com. Accessed on September 7, 2010.
2 pages.**

Google maps **datacare near 400 N Richey St,
Pasadena, TX 77506**

To see all the details that are visible on the screen, use the "Print" link next to the map.

[Get Directions](#) [My Maps](#)

[Print](#) [Send](#) [Link](#)



- A. **In Loving Hands Daycare**
604 Shaver St, Pasadena, TX - (713) 473-0218
- 1.1 mi SE
- B. **Little Shaver Academy**
915 Main Street, Pasadena, TX -
(713) 473-4311 - 1.5 mi SE
- C. **Kindercare Learning Centers Baytown: Deer Park**
602W Pasadena Boulevard, Pasadena, TX -
(713) 533-8514 - 1.6 mi SE
- D. **FAMILIA HOGAR**
1102 Witter Street, PASADENA, TX -
(713) 477-0439 - 1.9 mi SE

[Report a problem](#)

Hide

- ☒ datcare loc: 400 N Richey St, Pasadena, TX 77506
- ☒ 400 North Richey Street, Pasadena, TX
- ☐ schools loc: 400 N Richey St, Pasadena, TX 77506



Reference 49:

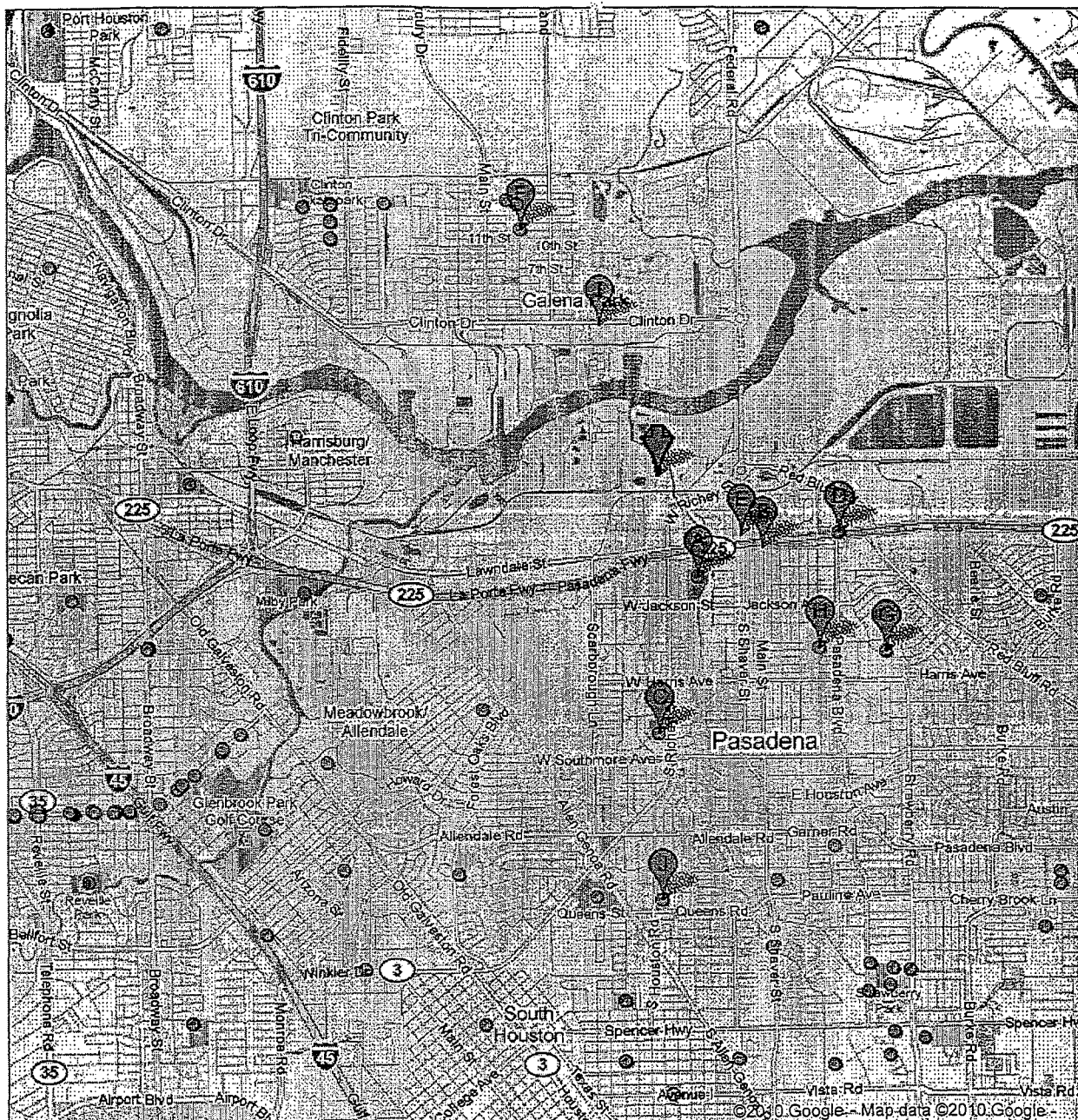
Google Maps. Parks near 400 North Richey Street, Pasadena, Texas. Available at www.maps.google.com. Accessed on September 7, 2010. 2 pages.

Google maps parks near 400 N Richey St, Pasadena, TX 77506

To see all the details that are visible on the screen, use the "Print" link next to the map.

[Get Directions](#) [My Maps](#)

[Print](#) [Send](#) [Link](#)



A. **Memorial Park**
Pasadena, Texas - 0.7 mi S

B. **Heritage Park & Museum**
204 Main Street, Pasadena, TX -
(713) 472-0565 - 0.8 mi SE

C. **Sunset Park Recreation Center**
914 West Hart Avenue, Pasadena, TX -
(713) 472-9113 - 1.7 mi S
1 review

D. **Laura's Mobile Home Park**
125 Pasadena Boulevard, Pasadena, TX -
(713) 534-8301 - 1.3 mi E

[Report a problem](#)

Hide

- ☒ parks loc: 400 N Richey St, Pasadena, TX 77506
- ☒ 400 North Richey Street, Pasadena, TX
- ☐ datacare loc: 400 N Richey St, Pasadena, TX 77506
- ☐ schools loc: 400 N Richey St, Pasadena, TX 77506

02

Reference 50:

**Google Maps. Church facilities near 400 North Richey Street, Pasadena, Texas.
Available at www.maps.google.com. Accessed on September 7, 2010. 2 pages.**

Google maps churches near 400 N Richey St, Pasadena, TX 77506

To see all the details that are visible on the screen, use the "Print" link next to the map.

[Get Directions](#) [My Maps](#)

[Print](#) [Send](#) [Link](#)



A. New Testament Church

209 West Shaw Avenue, Pasadena, TX -
(713) 472-1265 - 0.6 mi SE

B. Sun God Customs

112 Anderson Street, Pasadena, TX -
(713) 473-6333 - 0.6 mi SE

C. Church's Chicken

410 Richey St, Pasadena, TX - (713) 920-1105
- 0.8 mi S

D. Nuevo Amanecer

605 Shaw Ave, Pasadena, TX - (713) 589-0623
- 1.0 mi E

E. Iglesia De Cristo Miel
921 W Jackson Ave, Pasadena, TX -
(713) 534-0116 - 0.9 mi S

F. St Pius V Catholic **Church**-Pasadena
824 Main Street, Pasadena, TX -
(713) 473-9484 - 1.4 mi SE

[Report a
problem](#)

Hide

- ☒ churchs loc: 400 N Richey St, Pasadena, TX 77506
- ☒ 400 North Richey Street, Pasadena, TX
- ☐ parks loc: 400 N Richey St, Pasadena, TX 77506
- ☐ parks
- ☐ church

